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ABSTRACT

These three documents (final performance report, evaluation report, methodology guide) are products of a project through which the Career Advancement Center provided workplace literacy services to two industries in Greenville, South Carolina. The final performance report discusses achievement of objectives, specifically employee assessment, training program development, literacy training, offering of support services, establishment of evaluation systems, evaluation of training impact, and evaluation of project methodology. Other contents include a copy of a Skill Rating packet, a sample showing the compiled data at one classroom site, project schedule, and tables showing participant numbers and characteristics. The final evaluation report describes the purpose of the evaluation, the project, and the evaluation method, a modified version of the Context-Input-Process-Product model. These findings are reported: strong evidence that programs implemented and delivered services to a minimum of 150 workers at each industry site; only a moderate amount of evidence of successful program implementation and offering of additional services; and no evidence of development of a training methodology meeting specific workplace needs. The methodology guide contains a list of project goals and activity flowchart. These steps in program implementation are explained: needs analysis or job task analysis, curriculum development, employee orientation, assessment, training, support services, and training completion. (YLB)

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ED354361

TRAINING OPPORTUNITIES PARTNERSHIP

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CE 063 080

FINAL PERFORMANCE REPORT

Evaluation Report

METHODOLOGY GUIDE

BEST COPY AVAILABLE

FINAL PERFORMANCE REPORT

NATIONAL WORKPLACE LITERACY GRANT

TRAINING OPPORTUNITIES PARTNERSHIP PROGRAM
No. V198A10150
March 1991 - October 1992
Greenville Technical College
Greenville, South Carolina

TRAINING
OPPORTUNITIES
PARTNERSHIP

GRANT OBJECTIVES

T.O.P.
(TRAINING OPPORTUNITIES PARTNERSHIP)
GRANT OBJECTIVES

OBJECTIVE 1: To reduce the incidence of workplace illiteracy in Greenville County by establishing a partnership with three area companies that will provide for the assessment of at least 200 employees of each company during the eighteen-month project period.

During the grant proposal phase, a partnership was established with three companies agreeing to participate in the project: JPS Monaghan Plant, Homelite, and Cryovac. Prior to grant apporval, Cryovac chose an alternative plan of basic skills education for its employees and withdrew from the cooperative venture with Greenville Technical College. This sequence of events allowed the project to expand to additional manufacturing sites, resulting in a partnership that involved five industries:

JPS Monaghan Plant
JPS Parker Plant
JPS Slater Plant
JPS Dunean Plant
Homelite Corporation

An orientation program was provided at each industry to acquaint employees with the project and with the educational opportunity being offered. From this orientation, employees would decide of their interest in participating. Some companies required assessment of all employees, regardless of their interest in participating in the educational program; others provided the assessment option for only those selecting to enter the educational program. A total of 2257 employees attended the program orientation; 1134 individuals completed the assessment phase of the project. A breakdown of participation by site follows:

	Orientation	Assessment
Homelite	342	409
JPS Dunean	239	239
JPS Monaghan	197	130
JPS Slater	436	119
JPS Parker	1043	237

OBJECTIVE 2: To develop a training methodology for adult learners to meet specific workplace needs. Training materials will be individualized for each parnership industry and will utilize that industy's available job-related materials.

A training program was developed and implemented utilizing the following three components:

(1) Literacy tutoring: a one-on-one individualized program provided through the Greenville Literacy Association. Individuals who were assessed as having reading skills below the fifth grade level were given the educational option of individual tutoring. With this program, a tutor is matched to the student and his specific needs. The tutoring schedule is worked out between the tutor and student and instruction takes place at a location agreed upon by both.

(2) GED Preparatory Instruction: This component of the project was offered on-site to those interested in readying themselves for GED testing. Instruction was provided through the Adult Education Division of the School District of Greenville County.

(3) Basic Skills: A job-specific curriculum was developed for each industry that would provide up-grading in the math and reading skills utilized in the workplace. Involvement of employees in the curriculum development was achieved by the use of DACUM panels that were comprised of both managerial and hourly personnel. Their work resulted in the creation of a training needs matrix that provided curriculum developers with a basis for program content. Where necessary, on-site interviews and observation were added to insure that job-related materials and procedures were a fundamental part of the program.

OBJECTIVE 3: To offer the developed literacy training to at least 150 employees of each parnership industry during the project period. The specific training suggested for each targeted employee will be based on that employee's initial assessment scores.

It can be concluded that all who attended the T.O.P. orientation programs were offered the opportunity to participate. Those selecting to take part in the assessment phase of the program were given a more individualized invitation. In returning assessment results to each employee, a project counselor provided not only the test scores, but also the program options most appropriate for that individual. This one-on-one encounter allowed the employee a thorough understanding of his needs and how the program could assist. Figures showing participation in both program orientation and assessment follow:

	Orientation	Assessment
Homelite	342	409
JPS Dunean	239	239
JPS Monaghan	197	130
JPS Slater	436	119
JPS Parker	1043	237

OBJECTIVE 4: To offer additional services to each project participant through the use of an individualized program of literacy instruction that is supported by personal counseling, individual and/or group tutorial services, child care, and/or transportation assistance. These additional support services are expected to increase the average course completion rate from 50 percent to at least 60 percent or more.

The following support services were offered:

(1) Counseling: The role of the counselor began with the assessment process. As assessment results were provided and enrollments accepted, a counselor was assigned to each student. That counselor would assist in establishing individual goals for the student at program outset. Interim visits to the classroom ensured continual observation of the student and encouragement in successful participation. Where absenteeism or other problems arose, plant or phone contacts were made and appropriate assistance provided.

(2) Childcare: Assistance with the payment of childcare expenses incurred during class time was made available to all program participants. By indicating their need for this service and providing their counselor with the childcare provision information needed, an employee could secure payment for the child care provider on a monthly basis.

(3) Transportation: For those students needing transportation assistance in order to attend classes, bus passes were provided on a monthly basis. Access to this support mechanism was, again, through the program counselor assigned to each student.

These support services were offered to ensure that traditional barriers to participation would not eliminate those interested in pursuing this educational opportunity. It was assumed that the course completion rate would be improved by the inclusion of these services. A total of 513 employees enrolled in the T.O.P. Of this number 192 were placed in Literacy Tutoring. The remaining 321 were involved in either GED Preparation or Basic Skills. Certificates of completion were awarded to 156 of these students, showing a completion rate of 49%. All of these students attended, however, on a voluntary basis, with no compensatory or on-shift time provided.

An outgrowth resulting from the basic T.O.P. program showed the significant difference that on-shift course time can make in attendance. One project partner saw a specific need for Pre-SPC Math. The program materials were developed and provided by the project and classes offered. A total of 70 students were served in approximately a 12-week time span, with 9 hours of instruction per pupil. This training was offered on-shift and saw a completion rate of approximately 95%.

It can be concluded that the support services had less impact on the completion rate than did offering compensatory or on-shift time for participation. With the student population served by the T.O.P. program, child care and transportation assistance were not critical needs. Counseling did provide an added layer of support and encouragement, but did not always make the difference between a student dropping out or staying with the program. The time commitment of attending class is significant and allowing the use of on-shift time for participation appeared to be a greater impetus to course completion than were the support services.

OBJECTIVE 5: To measure the impact of training on project participants through an evaluative process of tracking skill achievement, job productivity, and personal growth and development.

Evaluation systems were established to measure the impact of training in three domains:

(1) Skill level achievement; (2) Job productivity; (3) Personal growth and development. An explanation of each evaluation system is contained in the analysis of the following two objectives.

OBJECTIVE 6: To evaluate the impact of project training on the partnership industries through an assessment by management and/or supervisory personnel of individual employee productivity.

In order to secure data that would assess the impact of training on job productivity, workshops were held with supervisory personnel and the project's external evaluator to identify appropriate evaluation factors. Resulting from these workshops was a Job Performance Skill Rating that was completed for each student (by his supervisor) both at program entry and exit. A copy of the Skill Rating packet and a sample showing the compiled data at one classroom site is included. Analysis of the data is found in the external evaluator's report.

OBJECTIVE 7: To evaluate the project methodology by determining original literacy levels of project participants through initial assessment scores and comparing these scores to post-training test results.

Data that would measure the impact of training on the literacy levels of project participants was secured by utilizing two methods of evaluation.
(1) A Student Record Sheet was maintained for each basic skills participant to record pre-and post-test scores as well as attendance data.
(2) A Skill Rating Analysis was completed on each student by the classroom instructor. This analysis measured the impact of training on math skills, reading and language arts skills and self-esteem. A copy of each of the evaluation instruments is included, as is a sample showing the data collected at one classroom site. An analysis of the data is found in the external evaluator's report.

OBJECTIVE 8: To prepare a final project report on the methodology and results of the project that will be available for dissemination to interested groups and institutions statewide and nationwide.

The final report on program methodology was developed as a separate product of the project. It is included as part of the final report and has been made available to interested groups and institutions statewide and nationwide.

I. Dependability

4 2

5	3	1
Perfect attendance	On time and ready for work	Constantly late
Always meets or exceeds quality standards	Regular attendance	Frequently absent
Volunteers for overtime	Stays on job	Never wants to work overtime
Accomplishes more than what he says he will	Will work overtime when asked	Promises but does not deliver
	Quality of work within specifications	Does not meet production/quality standards
	Accomplishes what he says he will	
	Does what is required	

II. Team Work

4 **2**

5	3	1
Promotes team spirit in department to achieve goals	Offers to assist others when asked	Refuses to work with others in department
Makes constructive suggestions	Enjoys and gets along with others	Complains constantly
Accepts challenges	Demonstrates concern for others' feelings	Does not enjoy work or working with others
Constantly seeking to improve processes	Works independently; participates only as requested	Wastes time
Voluntarily gets involved with others' problems	Tries to participate in departmental efforts	Blames others for problems
Takes charge as a leader	Reports things that are amiss to others	
	Has few comments; just does his job	
	Goes along with others' suggestions	

III. Self Iniative

4 2

5	3	1
Does not wait to be told what to do	Good attitude; a steady employee	Usually fails to take charge of assigned task(s)
Initiates new ideas or ways to improve processes	Self-starter unless it is a new or different job task	Always waits to be told what to do next
Assists without being asked	Learns all aspects of current job duties	Always exerts minimal effort
Requires little or no supervision	Makes adjustments to new ideas and changes with minimal resistance	Never tries to advance
Requests experience beyond scope of present job duties	Content, comfortable with current job duties	Poor attitude
	Follows instructions	Shies away from opportunities to learn new jobs
		Exhibits or expresses some distrust of management

IV. Job Knowledge

4 2

5	3	1
Assesses progression of work in regards to quality and quantity standards	Relates problems to supervisor	Unable to asses progression of work in regards to quality and quantity standards
Assists other workers	Performs routine job tasks well; makes minimal errors	Always needing help
Demonstrates exceptional math and reading skills on the job	Demonstrates good math and reading skills on the job	Runs defective parts knowingly
Makes suggestions for improving processes or solving problems	Expresses or exhibits desire to progress to new areas of responsibility	Often reacts instead of acting
Exceeds requirements of job performance	Is knowledgeable about job	Makes frequent errors while using job reading and math skills
Can explain job duties and tasks to others	Is easily trained to perform new tasks	Fails to upgrade technical skills
Works with supervisor to solve problems	Adapts to changes in procedures	Does not understand what to do
	Follows quality procedures	Makes frequent errors while performing job tasks
		Requires additional training on new or changed procedures or tasks

V. Adaptability

4 2

5	3	1
Performs unusual tasks willingly	Cooperates as needed; performs unusual or new tasks with supervision	Complains when asked to do something out of the ordinary
Demonstrates acceptance of change and works hard to see that it succeeds	Helps others without complaining	Performs unacceptable work on any unusual or new tasks
Performs less desirable tasks willingly	Demonstrates reluctance, skepticsim about change; shows preference to continue known tasks	Exhibits or expresses reluctance to take on any extra work
Attempts new things enthusiastically	Exhibits willingness to try new things	Refuses to help others
Volunteers to help others		

VI. Work Pride

4 2

5	3	1
Performs all aspects of work conscientiously	Does not volunteer for additional duties, but performs them when asked	Abuses company-provided equipment or tools
Produces above quality standards	Produces to quality standards	Performs below quality standards
Volunteers to works over when behind	Works overtime when asked, but does not volunteer	Refuses to perform additional duties
Demonstrates high self-esteem		Demonstrates low initiative

VII. Making Decisions

4 2

5	3	1
Judges work as good or bad without assistance	Occassionally makes decisons on own	Waits until told before beginning anything
Usually makes decisions on own	Exhibits mature behavior	Shows low concern about production or quality
Uses own judgement about when to start next job	Starts jobs as they are assigned	Exhibits immature behavior
	Asks for approval before starting next job	

VIII. Leadership

4 2

5	3	1
Expresses a desire to excel	Learns to work with others and how to instruct if necessary	Gives poor instructions
Thinks for himself and takes action to perform tasks or solve problems	Gathers information from others to be able to begin a task	Waits to be told to begin a task
Trains quickly	Demonstrates willingness to learn and asks questions	Expresses no desire for improvement
Takes initiative to ask questions to upgrade job knowledge	Follows set procedures without error	Work requires additional inspection
Voluntarily helps others		Blames others; demonstrates unwillingness to accept blame for own mistakes
Requests additional training		Constantly behind in work
Sees ahead what's happening next		Refuses help from others, even when needed
Takes charge of assigned tasks readily		
Is seen to be trusted by coworkers		
Exhibits confidence in being able to perform job tasks well		

IX. Taking Responsibility

4 2

5	3	1
Demonstrates willingness to accept responsibility	Accepts responsibility when asked to	Exhibits or expresses unwillingness to accept responsibiltiy
Volunteers for or requests opportunity to perform new or additional tasks	Corrects processes as instructed	Blames others for mistakes
Looks beyond problems for causes		Waits to be told or shown what to do
Looks ahead to suggest improvements		

X. Resolving Conflict

4 2

5	3	1
Willing to listen to others' views	Makes suggestions for resolving conflict when asked	Keeps trouble stirred up; keeps team disrupted
Is seen as having respect of coworkers	Makes suggestions about the causes of a conflict	Exhibits or expresses constant unhappiness with his job
Other workers ask him to arbitrate in conflicts		Demonstrates inability to stay focussed on job details; becomes emotional
		Demonstrates unwillingness to listen to views of others

JPS PARKER
T.O.P. PROGRAM
SUPERVISOR JOB PERFORMANCE SKILL RATING SHEET

NAME	I. DEPEND	II. TEAM WORK	III. SELF INTI.	IV. JOB KNOW	V. ADAPT	VI. WORK PRIDE	VII. MAKE DECIS	VIII. LEAD-SHIP	IX. TAKE RESPONS	X. RESOLVE CONFL
	COMPLETED GED IN DECEMBER '91									
(Pre-)	3	3	3	3	3	3	3	3	3	3
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SUPERVISOR DID NOT RETURN

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SUPERVISOR DID NOT RETURN

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TERMINATED

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NATIONAL WORKPLACE LITERACY PROGRAM

T.O.P. PROGRAM
(TRAINING OPPORTUNITIES PARTNERSHIP)

STUDENT RECORD SHEET

Name: ______________________________

Class: GED _____ Basic Skills _____

COMPANY: ___________________________

T.A.B.E. Scores: Reading _____ Math _____

Pre-Test Scores (Fill in scores or N/A if not tested in that subject area)

Math Pre-Test with level assignment written on test __________

Spelling Pre-Test __________

Reading Pre-Test __________

Post-Test Scores

Math Post-Test __________

Spelling Mastery Tests __________ __________

__________ __________ __________

Spelling Post-Test __________

Reading Post-Test __________

Pre-GED Test __________

Attendance: No. of classes held ________
No. of absences ________

Comments or anecdotes:

Each student folder should contain:
- Admissions Form (your option)
- Copies of any of the above tests administered to the student
  (I have TABE test copies)

10/91

JPS MONAGHAN
T.O.P. PROGRAM
STUDENT RECORD SHEET

NAME	TABE SCORES		PRE-TEST SCORES			POST-TEST SCORES				PRE-		ATTENDANCE	COMP
	CLASS	RDG	MATH	MATH	SPELL	RDG	MATH	SPELL MAST	SPELL	RDG	GED	(present)	GED
	BS	10.0		2	90		84	84 80 90 80 90	85	N/A		52/64	
	BS	12.9		I,II	70	100	100	94 95 90 95 100				45/64	
	BS	12.9		I,II	100	100	94	100 95 100 95 95	100			51/64	
	GED	12.9		92		100	100	94 100 90 95 85	90	100		61/64	
	BS	6.5		90	95		N/A	75 100 90 80	N/A	N/A		23/64	
	BS	10.8		I,II	95		100	94 85 100 95 95	80	EXEMPT		63/64	
		12.9		II	85	100	94	88 95 100 95 95	90	EXEMPT		25/64	
	BS	10.6		II	85		88	100 90 95 85 95	95			36/64	

NAME	CLASS	TABE SCORES RDG	TABE SCORES MATH	PRE-TEST SCORES MATH	PRE-TEST SCORES SPELL	PRE-TEST SCORES RDG	POST-TEST SCORES MATH	POST-TEST SCORES SPELL MAST	POST-TEST SCORES SPELL	POST-TEST SCORES RDG	PRE-GED	ATTENDANCE (present)	COMP GED
	BS	12.9		II	90		100	100 90 90 95 100	EXEMPT	EXEMPT		39/64	
	BS	3.2		II	90			100 100 100 100 100				28/64	
	DROPPED												
	DROPPED												
	BS	12.9		II	100	100	80	94 95 100 95 100	90	EXEMPT		44/64	
	BS	6.9		II	90		90	100 90 100 80	80			50/64	
	BS	12.9		II	80			90 90 100 80 95	80			29/64	
	GED	12.9		III	95		92	88 95 95 80 90	100	EXEMPT			Y
	DROPPED												
	BS	12.9		II	95		100	75 85 90 85 80	95	EXEMPT		40/64	

NATIONAL WORKPLACE LITERACY PROGRAM
T.O.P. PROGRAM
(TRAINING OPPORTUNITIES PARTNERSHIP)

SKILL RATING SHEET

NAME ________________________ PLANT ________________________

Please indicate your assessment of each student at program entry in the skill areas shown. Circle the number that best describes the student's level of functioning as he/she entered class.

The chart describes the characteristics exhibited at levels 1, 3, and 5. Levels 2 and 4 would be used for those who do not fit "neatly" into one of the three descriptions.

We will use this same rating sheet at the end of classes in May. The two assessments will then be compared to determine individual changes in skill level.

After completing this for each student on your roll, please return to me in the enclosed envelope by December 18.

I. SELF-ESTEEM AND PERSONAL GROWTH

5 4 3 2 1

I. SELF-ESTEEM AND PERSONAL GROWTH

5	3	1
Demonstrates good attendance	Attends only 50% of the time	Has poor attendance habits
Has desire to learn	Is beginning to enjoy learning and will seek help	Reluctant to ask for help
Willing to share accomplishments	Willing to try things on his own	Is afraid to try
Shows confidence in skills and self	Exhibits growing confidence as he enjoys success	Is embarrassed over skills
Has a positive attitude and outlook on life	Has an improved attitude and outlook on life	Has a negative attitude toward learning and life
Has an improved physical appearance and demeanor	Shows a somewhat improved appearance and demeanor	Has a very self-depreciating appearance and demeanor - hunched, quiet, withdrawn

NATIONAL WORKPLACE LITERACY PROGRAM
T.O.P. PROGRAM
(TRAINING OPPORTUNITIES PARTNERSHIP)

SKILL RATING SHEET

NATIONAL WORKPLACE LITERACY PROGRAM
T.O.P. PROGRAM
(TRAINING OPPORTUNITIES PARTNERSHIP)

SKILL RATING SHEET

NAME ______________________________ PLANT ______________________________

Please indicate your assessment of each student at program entry in the skill areas shown. Circle the number that best describes the student's level of functioning as he/she entered class.

The chart describes the characteristics exhibited at levels 1, 3, and 5. Levels 2 and 4 would be used for those who do not fit "neatly" into one of the three descriptions.

We will use this same rating sheet at the end of classes in May. The two assessments will then be compared to determine individual changes in skill level.

After completing this for each student on your roll, please return to me in the enclosed envelope by December 18.

II. MATH SKILLS

5 4 3 2 1

II. MATH SKILLS

5	3	1
Understands number relationships and concepts	Basic understanding of operations	Has poor understanding of number relationships
Able to perform mathematical operations	Often needs help in performing basic operations	Cannot perform basic operations
Able to apply mathematical reasoning skills to situational problems	Beginning to relate mathematical reasoning to situational problems and to everyday life	Cannot apply reasoning skills
Has problem solving capability	Beginning to understand word problems, but may need some help	Has fear of word problems
Exhibits confidence in math skills	Shows increased confidence as skills improve	Exhibits math anxiety

NATIONAL WORKPLACE LITERACY PROGRAM
T.O.P. PROGRAM
(TRAINING OPPORTUNITIES PARTNERSHIP)

SKILL RATING SHEET

NAME ______________________ PLANT ______________________

Please indicate your assessment of each student at program entry in the skill areas shown. Circle the number that best describes the student's level of functioning as he/she entered class.

The chart describes the characteristics exhibited at levels 1, 3, and 5. Levels 2 and 4 would be used for those who do not fit "neatly" into one of the three descriptions.

We will use this same rating sheet at the end of classes in May. The two assessments will then be compared to determine individual changes in skill level.

After completing this for each student on your roll, please return to me in the enclosed envelope by December 18.

III. READING AND LANGUAGE ARTS SKILLS

5 4 3 2 1

III. READING AND LANGUAGE ARTS SKILLS

5 Likes to read	3 Willing to read and has success at his level	1 Avoids reading
Comprehends what he reads	Comprehends some of what he reads	Cannot read and follow directions
Recalls details and retains information	Demonstrates some ability to recall and retain information, but needs reinforcement of comprehension skills	Has difficulty comprehending what has been read
Able to discuss and share material read	Improved comprehension and verbal ability	Unable to discuss and share material read
Has large vocabulary	Shows observable increase in vocabulary	Has poor vocabulary
Able to use reference resources	Needs help in using reference resources	Unable to use reference resources
Can successfully communicate by writing	Shows improved thought pattern and has limited success in communicating in writing	Cannot successfully communicate in writing
Exhibits good spelling skills	Has moderate or fair spelling skills	Exhibits poor spelling skills

JPS MONAGHAN
T.O.P PROGRAM
SKILL RATING SHEET

NAME	ENTRY			EXIT		
	I. SELF-ESTEEM	II. MATH SKILLS	III. RDG & LANG ARTS SKILLS	I. SELF-ESTEEM	II. MATH SKILLS	III. RDG & LANG ARTS SKILLS
	5	4	3	5	4	4
	4	3	3	3	4	4
	5	3	5	5	3	5
	4	4	4	5	4	5
	4	4	3	3	4	3
	4	3	3	5	4	4
	4	5	4	4	5	5
	4	3	3	4	3	4
	4	4	3	4	3	3
	4	3	2	DROPPED		
	3	1	1	DROPPED		
	3	2	2	DROPPED		
	4	4	3	5	5	5
	4	3	2	4	3	3
	4	4	4	DROPPED		
	4	4	4	5	5	5
	3	3	2	DROPPED		
	4	4	4	4	3	5

TRAINING
OPPORTUNITIES
PARTNERSHIP

PROJECT SCHEDULE

PROJECT SCHEDULE

The accompanying project timeline shows the tasks involved in project implementation and the anticipated schedule of completion. All tasks were completed on schedule and all established objectives met.

As noted previously, additions were made to the program with the expansion from three to five industry sites. A further outgrowth of the program, which was approved by the Department, was a PRE-SPC MATH class offered by one site. This course was provided on-shift and was extremely successful in adding 70 students to the program. Further, it showed a nearly 95% completion rate and an average pre-post test score improvement of 26 (pre-test) - 88 (post-test).

PROJECT TIMELINE

Tasks	Person Responsible	Project Quarters					
		1st	2nd	3rd	4th	5th	6th
Project Setup/Staffing: Data collection and reporting procedures established	Project Director	—					
Formative review of project by third party evaluator	Project Director External Evaluator	—					
Bulls-Eye Needs Assessment: Staff facilitators will perform needs assessment DACUM workshops with management and labor representatives from each partnership industry	Project Director Counselors Partnership Industries	—	—				
Course Development: The director will contract with course content experts to translate the DACUM chart of needs into an appropriate curriculum design	Project Director Course Developers	—	—				
Orientation Seminars will be presented at each partnership industry to acquaint Management, supervisors, and employees with the training program	Project Director Project Coordinator	—	—				
Enrollment of Employees	Project Director Project Coordinator Counselors			—	—	—	—
Motivational Seminar will be offered to enrollees as a positive "kick-off" to participation	Project Director			—	—	—	—
Assessment of Employees: Employees will be tested to measure current skill level functioning; data will be referred to counselors and student/counselor assignments made	Project Director Counselors Partnership Industries			—	—	—	—

Tasks	Person Responsible	Project Quarters 1st	2nd	3rd	4th	5th	6th
Employees will meet with assigned counselor to review scores, to determine individual goals and to decide on placement within the training program	Counselors		—	—	—	—	—
Classrooms will be established at each partnership industry site and outfitted with books, appropriate seating, overhead projection, chalk boards and other materials necessary to carry out training	Project Coordinator Partnership Industries		—				
Scheduling and release time or compensation arrangements will be determined and implemented	Project Director Partnership Industries		—				
Instructors will be selected according to qualifications and type of training needed	Project Director		—				
Training of employees either on site or with individual tutoring	Instructors Tutors			—	—	—	—
Ongoing employee counseling and evaluation	Project Coordinator Counselors			—	—	—	—
Project review and monitoring	Project Director External Evaluator				—	—	—
Employee evaluation	Counselors/Instructors Partnership Industries				—	—	—
Final Project Review	Project Director External Evaluator						—
Final Project Reporing	Project Director						—

TRAINING
OPPORTUNITIES
PARTNERSHIP

PROJECT PARTICIPANTS

PROJECT PARTICIPANTS

Tables are provided showing participant numbers and characteristics.

Measurement of progress or program completion differed among the various types of courses being offered. For those students in the Basic Skills or GED curriculum, a certificate of completion was provided. Of the 321 registered, 156 received certificates (49%). In the Pre-SPC Math, 67 certificaes were awarded, representing a 95% completion rate. Additional data relating to GED completion is found on a separate table.

The progress of students involved with literacy tutors from the Greenville Literacy Association is measured by the number of instructional books completed. Of the 192 students in the tutoring component, 111 had progressed at least one book level from their point of entry into the program.

NATIONAL WORKPLACE LITERACY PROGRAM
INFORMATION FORM
T.O.P. PROGRAM
No. V198A10150

Part 1: Program Parameters

1. Target No. to be Served: 450

2. No. Served at Each Site to Date:

Site 1: Orientation 342 Assessment 409
Site 2: Orientation 239 Assessment 239
Site 3: Orientation 197 Assessment 130
Site 4: Orientation 436 Assessment 119
Site 5: Orientation 1043 Assessment 237

3. Total No. served: Orientation 2257
Assessment 1134
Enrollment 513*

4. No. Participating in Programs Offered:

Literacy Tutoring 192
Basic Skills 172
GED 149
Child Care 3
Transportation 0
Mini Math Courses* 22
Pre-SPC Math* 70

5. Contact Hours Provided:
32 hrs./per 8 week session
(Contact hours are the number of teaching hours that workers receive)

Part 2: Participation Data

1. Mean Age Participants: 41.1

3. Race/Ethnicity: No. who are:

White 332
Black 176
Hispanic 2
Am. Indian/ Alaska Native 1
Asian/Pacific Islander 2

2. Sex: No. Males 217 No. Females 296

(Data for Pre-SPC Math Provided on separate sheet)

4.

Years with the company	No. Participants
Unemployed	0
0-5	149
6-10	72
11-15	123
16-over	169

*TOTAL enrollment with Mini-Math classes and Pre-SPC Math 605

DEMOGRAPHIC PROFILES BY SITE

PLANT	MED AGE	W	B	I	A	H	M	F
HOMELITE	43.6	36	28				28	36
JPS SLATER	40.2	69	14				46	37
JPS DUNEAN	44.4	46	29				40	35
JPS PARKER	37.8	86	51	1			37	101
JPS MONAGHAN	39.5	95	53		2	1	65	86

HIGHEST GRADE COMPLETED

	8th	9th	10th	11th	12th
HOMELITE	-	3%	4%	8%	18%
JPS SLATER	18%	13%	10%	7%	5%
JPS DUNEAN	9%	6%	12%	3%	4%
JPS PARKER	10%	13%	27%	20%	37%
JPS MONAGHAN	24%	33%	19%	9%	12%

PRE-SPC MATH

JPS-PARKER

DEMOGRAPHIC DATA

	RACE		SEX		GRADE COMPLETED				
AVG AGE	W	B	M	F	8	9	10	11	12
38	38	32	9	61	2	6	10	9	40

ATTENDANCE

ENROLLED	ATTENDANCE
70	94% perfect attendance

AVG. PRE-TEST	AVG. POST-TEST
26	88

G.E.D. FINAL INFORMATION

MONAGHAN

ENROLLED	49
DROPPED	16
RECOMMENDED FOR GED TEST	15
RECEIVED GED	4
ATTENDED 50% OR MORE	13
SHOWED GRADE LEVEL IMPROVEMENT	17

HOMELITE

ENROLLED	11
DROPPED	0
RECOMMENDED FOR GED TEST	1
RECEIVED GED	1
ATTENDED 50% OR MORE	5
SHOWED GRADE LEVEL IMPROVEMENT	6

PARKER

ENROLLED	55
DROPPED	31
RECOMMENDED FOR GED TEST	10
RECEIVED GED	2
ATTENDED 50% OR MORE	6
SHOWED GRADE LEVEL IMPROVEMENT	7

TRAINING
OPPORTUNITIES
PARTNERSHIP

PROJECT DISSEMINATION

PROJECT DISSEMINATION

The Training Opportunities Partnership was featured as a concurrent session topic at the American Association of Adult and Continuning Education Annual Conference in Annaheim, California in November 1992. The presentation, enitled "BASICALLY, A Tough Road to Conquer" focused on the need for literacy education in the workplace and the methods used by the Training Opportunities Partnership to meet that need.

To further share the experiences and knowledge gained by the project, a methodology report has been prepared and made available both through state and national channels.

TRAINING
OPPORTUNITIES
PARTNERSHIP

EVALUATION ACTIVITIES

EVALUATION ACTIVITIES

Jorie Philippi was contracted as the external evaluator for the T.O.P. project. Under her direction, evaluation strategies were developed and implemented.

These strategies dealt with the project's impact in 3 areas: skill level achievement, job productivity, and personel growth and development. Both an explanation of the methods utilized and an analysis of the evaluation data are included in the report submitted by Ms. Philippi.

Career Advancement Center
Greenville Technical College
Workplace Literacy Project

Evaluation Report

FINAL REPORT

Prepared by

Jorie W. Philippi

February, 1993

Performance Plus Learning Consultants, Inc.
7869 Godolphin Drive
Springfield, VA 22153
(703) 455-1735   FAX 703-455-5957

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Introduction

Background: The Career Advancement Center for Greenville Technical College in Greenville, South Carolina was funded by an 18-month grant award from the U.S. Department of Education to provide workplace literacy services to two area industries with whom they partnered, namely, JPS Textiles and Homelite. The program was granted a 3-month no-cost extension and operated as a national workplace literacy project demonstration from March 1, 1991 through November 30, 1992 to determine the effectiveness of the Center's proposed workplace applications of basic skills training model.

The need for this project grew from a recognition by local businesses and industries that the pressures of competition in a global marketplace have accelerated the pace of change in workplace environments. The expanding and shifting responsibilities of manufacturers and businesses in transition from Taylorism to a Total Quality Management system via self-directed cross-functional work teams, increasing technological demands and reduced production cycle times, along with the advent of national testing requirements for operators and drivers, have created an interest among employers and workers alike to enhance use of the workplace basic skills needed by the Greenville area labor force to meet these challenges. Because technical training-specific courses and traditional education often do not give workers a broad-based knowledge of team communication, problem-solving, critical thinking and learning-how-to-learn concepts and competencies, participating companies determined the need for instructional programs that would provide workers with workplace basic skills applications that are transferable and adaptable to their changing work environments.

Area companies began discussions with Greenville Technical College in 1988, following the formation of the Governor's Task Force on Excellence and hiring of a workforce specialist, assigned to the college. Initial outreach services to community businesses helped to foster the sharing of information and to clearly define company/ worker needs and agency responses. This careful exploration of possibilities resulted in the partnering of four JPS Textile facilities and a Homelite plant to apply for federal grant monies for provision of on-site programs. (Initially, Cryovac, another area manufacturing plant, had agreed to be a partner as well, but terminated their participation due to circumstances external to the project.) Managers representing the organizations' training and education departments met with the college program developers to ensure that the customized programs directly related to the competencies needed for the workplace and responded to the needs of the targeted worker participants. To this end, the education/business partnership members were committed to gathering data for performing a "front-end analysis" in order to assess the communication and problem-solving needs of targeted worker-participants. They also determined programs' goals, lengths, schedules, and implementation plans.

The developers of the programs, members of the staff at the Career Advancement Center at Greenville Technical College, then custom-designed, created and delivered the instructional program. A variety of strong programs were subsequently implemented and refined during the grant period. Greenville Technical College, as the grant financial manager, contracted with Performance Plus Learning Consultants, Inc. to serve as a third-party evaluator throughout the project.

Purpose of the Evaluation: The Career Advancement Center at Greenville Technical College has requested this third-party evaluation of their U.S. Department of Education Workplace Literacy Demonstration Project to assess 1.), the extent to which the project's goals and objectives have been accomplished, and 2.), the extent to which program development and implementation proceeded as planned. Stated program goals were:

1.) to improve the productivity of the labor force through improvement of basic literacy skills needed in the workplace; and

2.) to enhance workplace literacy by collaborating with industry to provide the resources necessary for literacy training in the workplace, reach employees who otherwise would not have access to literacy programs, and increase public awareness through an effective media campaign that will emphasize the severity of the problem of adult literacy.

Specifically, the evaluation objectives to be investigated were:

- on-going identification of the program's strengths and areas still needing any improvement throughout the life of the project;

- evidence of a reduction in the incidence of workplace literacy in Greenville County through the establishment of workplace literacy partnership programs at three area companies and assessment of at least 200 employees of each company;

- evidence of the development of a training methodology for adult learners that meets specific workplace needs, with individualized materials for each industry that utilize that industry's available job-related materials;

- evidence that the project programs implemented targeted and delivered services to a minimum of 150 workers at each industry location and using initial assessment scores to identify eligible program participants;

- evidence of a smooth instructional flow of activities within the developed curricula, reflecting a sound developmental approach to mastering those literacy skills necessary for competent performance of identified job tasks;

- evidence of the offering of additional services to each project participant through the use of an individualized program of literacy instruction, supported by personal counseling, tutorial services, child care, and/or transportation assistance, and subsequent course completion by 60% of participants or more.

- evidence that measurement of the impact of training on project participants was conducted via internal evaluation processes that tracked 1, literacy skill achievement by means of pre- and post-test scores; 2, job productivity; and 3, personal growth and development;

- evidence of successful program implementation through the use of appropriate processes for participant recruitment, class scheduling, development of individual education plans, curriculum delivery, pre- and post-assessment, and instructor training and support, that are academically and organizationally sound and that match with program goals; and,

- evidence of a county-wide awareness campaign about adult literacy conducted through various local media and of a final project report on methodology and results available for national dissemination.

Additionally, recommendations were requested on the issues and concerns about model replicability, limited to data gathered from observations, survey and test results, anecdotal records and interview information.

Description of the Project to be Evaluated: The Greenville Training Opportunities Partnership (TOP) Workplace Literacy Project consisted of five workplace literacy training partnerships formed between Greenville Technical College Career Advancement Center and the plants of two local industries. The demonstration project partners were:

- Homelite, a division of Textron, Inc., which manufactures chain saw components, construction pumps, and construction generators and employs approximately 430 workers. The TOP program operated at this site from September, 1991 through May, 1992. Twenty-two employees enrolled in the upgrading strand, four dropped out, and 14 received certificates of participation. Eleven enrolled in the GED preparation strand, none dropped out, and one received a GED.

- JPS Textile Group, Monaghan Plant, which manufactures unfinished cloth and employs approximately 740 workers. The TOP program operated at this site from August, 1991 through May, 1992. Thirty-two employees enrolled in the upgrading strand, nineteen dropped out, and thirteen received certificates of participation. Forty-nine enrolled in the GED preparation strand, sixteen dropped out, and four received GEDs.

- JPS Textile Group, Parker Plant, which manufactures automotive products. The TOP program operated at this site from October, 1991 through May, 1992. Fifty-four employees enrolled in the upgrading strand, twenty-two dropped out, and thirty-two received certificates of participation. In addition, three Pre-SPC math courses were conducted on company time with a total enrollment of ninety-five participants; average attendance ranged from 88% to 100%. Fifty-five employees enrolled in the GED preparation strand, thirty-one dropped out, and two received GEDs.

- JPS Textile Group, Slater Plant, which manufactures fiberglass cloth. The TOP program operated at this site from September, 1991 through May, 1992. Fifty-two employees enrolled in the upgrading strand, twenty-eight dropped out, and twenty-two received certificates of participation.

- JPS Textile Group, Dunean Plant, which manufactures unfinished cloth. The TOP program operated at this site from August, 1991 through May, 1992. Thirty-four employees enrolled, five dropped out, and 30 received certificates of participation.

According to the published description of the program, the design of the project was structured to meet workers' basic skills needs through the development and/or provision of academic and job-related curricula. DACUM-style job analyses conducted by technical college staff resulted in the development of curricula and instructional delivery formats tailored to meet the various employer/worker needs of each of the partners. A brief description of the program follows:

Three strands of instruction were made available to individual participants: non-reader tutoring, GED preparation, and basic skills upgrading (job-related). Participants were placed in a strand through analyses of their scores on pre-program assessment instruments and through intake interviews with counselors and instructors. Each participant attended on a voluntary, non-reimbursable basis during off-work hours. Classes at each site were conducted before and after shifts and used an open-entry, open-exit format. In addition, several pre-SPC math classes were requested, developed, and operated toward the end of the grant period at several plant locations.

Counselors visited each site on a regular basis to meet with participants. They also placed follow-up phone calls to absentees to determine reasons and offer interventions, where possible. Child care and transportation were made available to all participants, although few opted to utilize these services.

Curriculum materials for non-reader tutoring were provided on an individual basis by the Greenville Literacy Association. GED preparation was prescribed by instructors at each site and utilized commercially available texts and workbooks. The basic skills upgrading curriculum materials were developed by the Greenville Career Advancement Center, based on the results of two DACUM job analyses conducted with separate panels of managers and employees from Homelite and from the four JPS locations, using the Bulls Eye technique. The customized materials tailored to the needs of each of the two companies consisted of:

- *TOP Reading for Homelite* - a loose-leaf binder of 118 pages, consisting of ten units of instruction:

I. Getting an Overview of Materials
II. Using an Index
III. Following Directions
IV. Using Context Clues
V. Locating the Main Idea
VI. Discovering Details
VII. Reading Between the Lines
VIII. Reading Charts, Tables and Graphs
IX. Putting Ideas in Order
X. Developing Scanning Skills

- *TOP Reading for JPS Industries*- a loose-leaf binder of 126 pages, consisting of ten units of instruction:

I. Getting an Overview of Materials
II. Using an Index
III. Following Directions
IV. Using Context Clues
V. Locating the Main Idea
VI. Discovering Details
VII. Reading Between the Lines
VIII. Reading Charts, Tables and Graphs
IX. Putting Ideas in Order
X. Developing Scanning Skills

Both reading courses share core instructional materials for each unit, which focus on materials and situations from everyday life, such as newspapers and recipes, to teach the skills. Most units also contain one example of a company-specific job print material that required using an applied version of the skill(s). Paper-pencil exercises are the major activities for each unit, with minimal explanation, which is generally given in the form of rationale, rather than a modeling, or demonstration, of how to perform the skill. Many examples and graphics appear to have been excerpted from other commercial materials, but citations are not provided.

TOP Math for Homelite- a loose-leaf binder of 62 pages, containing 16 units of instruction:

Lesson 1.- Place Value, Rounding Numbers
Lesson 2.- Addition and Subtraction of Whole Numbers
Lesson 3.- Multiplication and Division of Whole Numbers
Lesson 4.- Introduction to Fractions; Comparison of Fractions
Lesson 5.- Fraction Addition
Lesson 6.- Fraction Subtraction
Lesson 7.- Fraction Multiplication
Lesson 8.- Fraction Division
Lesson 9.- Introduction to Decimals
Lesson 10.- Addition and Subtraction of Decimals
Lesson 11.- Multiplication and Division of Decimals
Lesson 12.- Averaging and Tolerances
Lesson 13.- Ratio and Proportion
Lesson 14.- Introduction to Percent
Lesson 15.- Three Types of Percent Problems
Lesson 16.- Basic Measurement

TOP Math for JPS Industries- a loose-leaf binder of 56 pages, containing 16 units of instruction:

Lesson 1.- Place Value, Rounding Numbers
Lesson 2.- Addition and Subtraction of Whole Numbers
Lesson 3.- Multiplication and Division of Whole Numbers
Lesson 4.- Introduction to Fractions; Comparison of Fractions
Lesson 5.- Fraction Addition
Lesson 6.- Fraction Subtraction
Lesson 7.- Fraction Multiplication
Lesson 8.- Fraction Division
Lesson 9.- Introduction to Decimals
Lesson 10.- Addition and Subtraction of Decimals
Lesson 11.- Multiplication and Division of Decimals
Lesson 12.- Averaging and Tolerances
Lesson 13.- Ratio and Proportion
Lesson 14.- Introduction to Percent
Lesson 15.- Three Types of Percent Problems
Lesson 16.- Basic Measurement

Both courses are designed to be used in conjunction with Contemporary Books mathematics series texts, *Number Power 1* and *Number Power 2*. Each lesson consists of single- and multiple-step word problems, that incorporate workplace references, but do not relate to actual on-the-job application of quantitative techniques. For example, a typical word problem reads:

> " In a weave room, there are 645 looms. There are two harnesses on each loom, and each harness contains 890 heddles. How many heddles are there

in all the looms?"

This does not appear to be the type of problem that would be encountered regularly on the shop floor, requiring a worker to do multiple-step multiplication functions in order to perform an actual job task.

Get Comfortable with Math, Parts I and II for JPS Industries- Approximately 100 loose pages of exercises that address whole number operations, fractions, decimals and percents. The materials, although bearing a cover sheet indicating their development by TOP project staff, contain references to a commercial text, *Math that Works!* and the pages appear to be copies of this book. No citation is provided.

Industrial Math for SPC- A paper-bound 32-page text, developed by the Greenville Technical College Governor's Workforce Initiative, addresses the following topics:

- Vocabulary used in SPC
- Rounding
- Adding Whole Numbers and Decimals; Averaging
- Subtracting Decimals and Finding Range
- Multiplying Decimals
- The Metric System; Measuring
- Understanding and Making Graphs

Everyday life and generic SPC examples are used to illustrate the concepts taught.

Spelling for JPS Industries- A series loose-sheet modules of 1 to 10 pages each that provide instruction in:

- Spelling Skills
- Using a Dictionary
- Recognizing Prefixes, Suffixes and Base Words
- A Brief Grammar Review
- Words that are Frequently Mispronounced
- Plurals with -s and -es
- Homophones
- The One Hundred Spelling Demons
- Put i Before e, Except after c
- Mastery Test: Spelling and the Dictionary

Modules contained both original materials and copies of pages from commercial materials. No citations were provided.

Pretests and posttests were not contained in the curriculum materials examined. Project staff reported scores from the Test of Adult Basic Education (TABE) in reading and math, as well as other pre- and post-test scores. There were no instructor guides developed to accompany the customized curricula and instructor training was reported to be minimal.

Method

Design: The evaluation of the Greenville TOP Workplace Literacy Demonstration Project employed a modified version of the Context-Input-Process-Product (C.I.P.P.) model, (Stufflebeam & Guba, 1971). This method of evaluation was chosen by the evaluator as the most suitable tool for investigating the evaluation objectives, (see pages 5-7), because it examines project effectiveness through structured analysis of the cohesiveness of project goals, components, and operations, independent from comparisons to outside standards or other programs.

The C.I.P.P. model was used to analyze:

- Context (i.e., shared goals and philosophy of key personnel and participants);
- Input (i.e., resources, including personnel, materials, time and facilities);
- Process (i.e., congruence of observed instructional development and delivery with project goals and research on instructional effectiveness); and
- Product (i.e., indicators of project effectiveness).

It is important to note that, due to the number of partnerships and limited resources allocated to evaluation in this project, extensive and uniform investigation at all sites was not possible. Forms and procedures for use in data collection across sites were developed by PPLC and explained to representatives and staff for each partnership, as well as to the project director.

Participants: The participants in the project were workers employed by the partner companies. A brief description of the available composite average worker profiles by sites is provided below for reference.

Demographic Characteristics by Site

Plant	**Median Age**	**Male**	**Female**
Homelite (n= 64)	43.6 years	44%	56%
JPS Slater (n= 83)	40.2 years	55%	45%
JPS Dunean (n= 75)	44.4 years	53%	47%
JPS Parker (n= 138)	37.8	27%	73%
JPS Monaghan (n= 151)	39.5	43%	57%

Plant	**Ethnic Groups:**				
	White	**Black**	**Indian**	**Hispanic**	**Asian**
Homelite	56%	43%	0%	0%	0%
JPS Slater	83%	17%	0%	0%	0%
JPS Dunean	61%	39%	0%	0%	0%
JPS Parker	62%	40%	8%	0%	0%
JPS Monaghan	63%	35%	0%	1%	1%

Plant	**Highest Grade Completed in School:**				
	8th	**9th**	**10th**	**11th**	**12th**
Homelite	0%	3%	4%	8%	18%
JPS Slater	18%	13%	10%	7%	5%
JPS Dunean	9%	6%	12%	3%	4%
JPS Parker	10%	13%	27%	20%	37%
JPS Monaghan	24%	33%	19%	9%	12%

Because of the nature of the evaluation design, the focus of evaluation activities extended beyond the traditionally-held concept of "participants" to also include project administrators, the employers, instructors, counselors, and developers.

Instruments: Data for this evaluation were requested and gathered via pre- and post-program learner surveys, structured interviews with learners and program personnel, instructor anecdotal report forms and questionnaires, supervisor ratings, and formally-documented observations of instructional sessions and instructor training. Additionally, data were gathered from detailed analysis by the evaluator of program documentation, instructional materials, and learners' work, (i.e., pre- and posttest scores and learners' records).

Procedure: Following initial telephone conversations with key personnel at Greenville Technical College Career Advancement Center to establish evaluation objectives, the evaluator conducted the activities listed below. On-site visits were conducted during June and October, 1991 and June, 1992.

1. Development of Evaluation Data Collection Instruments:

    - Forms created for Participant Pre- and Post-Program Surveys, Instructor Interview, Instructor Anecdotal Records, Learner Individual or Focus Group Interview, Classroom Observation, Employer/Supervisor Interview and Supervisor Performance Indicator Ratings.

2. On-site consultation with curriculum developers concerning instructional curricula design and development and feedback on how to strengthen activities contained in them.

3. On-site interviews with training and production managers, supervisors, instructors, project managers and learners from the five partnering industry sites.

4. On-site observations of classes during various cycles of instruction.

5. Off-site analysis and review of materials and collected data from sites.

6. Communications and Operations:

    - Contact throughout grant period with project through conversations with project director Joan Mason, to discuss project goals, progress, and evaluation activities.

    - In-person interviews with instructors, curriculum developers, and counselors.

    - Final Evaluation Report submitted to project director, February, 1993.

Results

Project Context:

> To what extent are goals and philosophy of the project shared by key project personnel and learners?

This section of the evaluation is a comparison of the project goals and priorities as reported in project descriptions and interviews with key project personnel, including:

- project director
- project curriculum developers;
- managers and supervisors;
- project instructors;
- project counselors; and
- learners.

These viewpoints about project goals were analyzed for consensus and divergence.

The published project goals and purposes are contained in the grant proposal submitted to the U.S. Department of Education. They were developed cooperatively after almost one year of meetings and communication between Greenville Technical College and partnering industries, prior to applying for the grant monies. Stated goals and objectives in the grant proposal included:

- to improve the productivity of the labor force through improvement of basic literacy skills needed in the workplace;
- to provide the resources necessary for literacy training in the workplace;
- to reach employees who otherwise would not have access to literacy programs;
- to increase public awareness through an effective media campaign that emphasizes the severity of the problem of adult illiteracy;
- to assess and provide instruction to at least 600 employees in the partnering companies;
- to develop a training methodology for meeting the basic skills needs of adult workers that can be disseminated nationwide;

- to offer ancillary services for child care, transportation, and counseling to every participant in order to encourage better program attendance and reduce drop-out rates;
- to increase the workplace literacy levels of at least 450 program participants;
- to increase the grade level abilities of each participant by one grade level per session attended; and
- to develop a manual that details project procedures and techniques for use by other business/education partnerships operating similar programs.

Project Director- On June 10, 1991 Joan Mason, of Greenville Technical College Career Advancement Center, was interviewed about her perceptions of program goals and philosophy. Speaking for herself and the Career Advancement Center, she articulated the following project goals:

- to increase the basic skills of the workforce to the point of meeting workplace demands, i.e., more of the technical on-the-job requirements for getting the job done.

- to create materials that are at least 75% specific to the job.

- to develop a program that results in participants who are retained and don't drop out.

Project Curriculum Developer- Linda Garner was interviewed during the June, 1991 site visit . The goals expressed centered around developing curriculum that enabled workers to be trained by their companies to do the jobs required of them. In addition, an emphasis was placed on the need for the curriculum to be 50% work-related and 50% non-work related, to ensure that participants would find multiple uses for what they learned. The other two curriculum writers, Corrie Wiley and Susan Bramlette, were also interviewed during the visit and expressed similar opinions.

Managers and supervisors- were interviewed at each of the partner plant sites during the June, 1991 site visit. Comments about project goals generally included references to improving the general academic and everyday life basic skills of workers, with little evidence of a desire to connect course content to job contexts or companies' goals. Structured interviews were conducted with personnel managers Bob Fletcher of JPS Slater, Ronnie Brown of JPS Monaghan, Jyles Phillips of Dunean, David Brown of JPS Parker, and human resources manager Ed Hindman of Homelite in Greer. Responses to the question, *What do you consider to be the main purposes, goals and objectives of this program?* included:

> "The goal is not necessarily work-related; rather, we want to provide our workers with an opportunity to get education that will impact on their lives. If they [the workers] can improve their quality of life, their personal goals can be accomplished, like helping their kids with homework."
>
> "Employees who are parents of children need to change their own attitudes about education, an intergenerational approach."
>
> "We want to help our employees pursue areas of education they didn't get to explore in school-- for whatever reasons-- and make school convenient for them now."

> "If they [the workers] improve in their everyday life skills, maybe they'll be able to improve their ability to handle new equipment in the future."

> "If they [the workers] learn to read, they can read anything; two times two is the same in their checkbooks as it is on the job. Hopefully, they'll achieve a better quality of life than they have now; maybe that will help them become more promotable."

> "We want to improve and upgrade the basic skills of our workforce to enable them to build a better self-image. We'd like to see them [the workers] expand their ability to enjoy life with things like reading, to travel, and so on. If they can use these same skills on the job, they'll be better motivated to work."

Only two of the managers interviewed, Brown and Hindman, said that they thought they might be able to identify any workplace indicators that could be used to measure the transfer of learning and impact of the program on worker performance of job tasks. When asked how they would know if program goals were being met, responses included:

> "When I hear [worker] comments like, 'I helped by grandbaby do math homework,' or 'I'm really enjoying this class.' That's success. We'll be accomplishing what we set out to accomplish."

> "The only way we can really know is to test at the end of the program and see if they learned the reading and math that was taught. That way, the participants will have a sense of accomplishment in life."

> "I'll know when I hear an employee proudly say, 'I just completed Book 1,' or when I attend those graduation ceremonies next year for the GED recipients."

> "We'll want to know if the participants are reaching their academic objectives, that is, how many get GEDs or finish their studies. Their [the workers'] attendance rates in class, retention, and attention during class also will tell us how well the program is going."

Only one manager mentioned positive feedback from shopfloor supervisors as an indicator of achieving program goals.

The evaluator also conducted focus groups with supervisors at each plant location to elicit attributes of competent, average, and less than competent workers in order to develop an instrument for benchmarking and measuring program impact by means of identification and employee ratings with local performance indicators for each site. After reviewing the results of all the focus groups, the supervisors at the separate locations opted to combine their responses and use one project-wide performance indicator instrument for rating of all project participants. The performance attributes selected for inclusion in the employee rating instrument were:

- dependability
- working as a team member
- self-initiative
- job knowledge
- adaptability
- work pride
- making decisions

- leadership
- taking responsibility
- resolving conflict

Supervisors identified three sets of specific observable, measurable behaviors for each of the above attributes that would be exhibited by a highly competent worker, by an average worker, and by a less-than-competent worker. The results were used by PPLC to create an instrument that was subsequently used by the supervisors to conduct pre- and postprogram ratings of participants they supervise.

Project Instructors- Instructors were interviewed separately in their classrooms during the site visits. Comments indicated a desire to assist workers in mastering "real-life problems" and in "building their self-esteem." Many mentioned helping employees "feel comfortable" with the learning process. Two instructors felt that program emphasis should be on educating the whole person and building everyday living skills, rather than on work-related skills. Only one instructor voiced an opinion that the programs' content should address at least 50% work-related skills. All instructors stressed their preference for using the commercial basic skills materials and the academic portions and examples from the customized curricula.

When asked what the most important things for an instructor in their program to do were, typical responses included, "to build rapport with the learners so they feel comfortable asking for help," "to be interested in learners academically and personally," and "to get familiar with the materials taught." When asked, *How do you know when you're achieving the goals of the program?*, instructor responses included:

" When people keep coming."

"When someone says, 'I went to the store yesterday and was able to figure out percent for the first time.' or 'I never thought I could learn that.'"

"When I see evidence that self-esteem is being built."

"There are subtle ways of seeing the goals-- I'm not sure I can explain it."

"I look at the amount of work the learners are completing, that is, the dates on the packets they master. They [the workers] should be completing packets regularly and turning them in. I also can tell the program is going well if participants ask lots of questions; that indicates a high level of comfort with me and with the program."

Learners- Goals of participants were collected in structured focus group interviews during site visits and on pre-program and post-program surveys administered by project staff throughout instructional cycles. Responses from participants in the program indicated the importance of having an opportunity to study skills they had forgotten or never encountered. Many mentioned math lessons as those that really met their needs. Specific goals included preparation for entering college or taking advanced technical courses or getting GEDs. All participants in the focus groups indicated wanting to acquire or improve their job-related basic skills. Responses evidenced that most participants wanted to either upgrade current job skills or prepare for future job/ career tasks. There was a general concern by focus group program participants conducted at JPS sites over the technological changes in the textile industry and their need to be prepared to change with job tasks. Many examples were provided of particular job applications in which they hoped to use what they were learning.

Pre-program participant surveys contained an open-ended learner goal statement stem. Participant responses indicated their expectations were as follows:

want my GED

I would probably be the first to be laid off if I don't get this training

need to learn to help myself and my highschool daughter

I've forgotten things I knew in school.

I need to know about fractions, percents and decimals; I'm going to conquer them.

I want to learn!

I took a correspondence course to finish high school and I feel I missed a lot.

to increase my knowledge of math

I'm here just because it's a challenge.

I have a grandchild who will someday need help with school work and I want to be able to help.

I quit the tenth grade. This is an opportunity.

to finish algebra

I want to upgrade enough to go on to Greenville Tech.

This can help me learn more.

I want a GED and better jobs.

to get a better job.

to be a tutor

to help my kids a little more

to have the job advantage.

can't do math; need to learn

to learn math for the future

to be able to get a better job

to go into horticulture

better job opportunities

The more I learn, the more I'll know about myself.

PPLC collected and analyzed goal statements from project director, project curriculum developers, managers, supervisors, project instructors, and participants. For a discussion of areas of convergence and divergence, please see the evaluation section, "Summary of Results," under Discussion. PPLC next investigated the input of resources to the project, which is addressed in the next section of the evaluation.

Project Input:

What resources were available to the project during development and implementation and to what extent were they used effectively?

This section of the evaluation addresses major resources of the project. It includes program instructional materials, design and appropriateness for the targeted learner populations; key personnel qualifications and the match between published project duties; and facilities. It also examines the content and processes used for instructor training. The data presented in this section were analyzed for strengths and weaknesses.

Program materials- The instructional materials were designed for each of the sites after developers conducted DACUM job analysis, using the Bulls Eye technique with employee and manager focus groups from JPS and Homelite. Thirteen panelists from across all four JPS plant locations and fourteen panelists from Homelite participated in the processes as two separate groups. No information was made available concerning the numbers of managers versus employee panelists for each company. The panel group processes were conducted by Joan Mason, project director, and Al Stokes, a project staff counselor.

Documentation of the DACUM analyses identified specific job task priorities and lengthy lists of critical print job materials for each of the two companies; however, other than use as occasional examples contained in the customized lessons, there is no evidence that formal curricula designs or contents were developed from the results of the DACUM job analysis to address company-identified job task basic skills application needs. The similarity of instructional unit titles and content for both companies provides evidence to the contrary.

The ranges of reading difficulty level for the various instructional materials appeared to match the ability levels of targeted participants. Results of pretests were the only measures of targeted participant ability levels. Customized pre-tests and posttests to measure learner mastery of the customized materials were not developed. Observations of delivery and analysis of classes demonstrated the ability of learners to comprehend topics and to participate in learning activities comfortably.

When asked about the strengths and weaknesses of instructional materials, the majority of participants thought the content reinforced skills needed on the job or in everyday life, especially in the commercially developed math materials. When asked to make recommendations for improving the program, over half of the participant responses addressed the curriculum materials. Recommendations included:

- more math like I signed up for
- more examples of how problems are done
- more English skills
- the reading took too much time
- more class [whole group] work
- get rid of the blue [customized] reading book; use packets instead
- change the reading book; make it less confusing
- change the reading part of the program
- add more time on computers

Instructor guidelines scripted for customized course sessions were not developed; rather, the materials consisted of only worksheets and handouts for participant use.

Key Personnel- Program coordinators from the colleges had established working relationships with their business/labor partners prior to receipt of the grant. The curriculum writers had previous instructional writing experience and the co-developer of the SPC Prep course also had previous experience with development of functional contextual materials for workplace literacy programs. Instructors were seasoned adult basic education teachers with expertise and many years of teaching experience. Two hold masters degrees and two bachelors degrees. Major areas of study include chemistry, mathematics, social studies, and education.

The project director, Joan Mason, holds a masters degree in social sciences and has had extensive experience in program management. The three counselors all hold masters degrees in guidance and counseling or personal services and have had extensive experience in working with adult clients. The curriculum developers and program supervisor Linda Garner, who worked with them, hold bachelors and masters degrees in education.

Facilities Sessions were conducted in a variety of worksite locations. The majority were held in training and meeting rooms of the partner companies. At two JPS sites, room was provided in an adjacent church and store front. All facilities observed during the three site visits appeared well lit and conveniently located, with adequate space for conducting learning activities.

Instructor Training- Initial materials overview was provided for project staff Linda Garner to familiarize the instructors with the materials. Responses to interview questions indicated that instructors felt that their previous teaching experience had seasoned them to cope with the demands of the program. One mentioned having a Greenville Technical

College representative with her in the classroom during the first session to answer questions from participants about the program. All suggested that having time to meet as a group of instructors with the rest of the project staff about half way through the first cycle would have lent support to their efforts, allowed them to give feedback to the developers, and built a better sense of shared learning community.

For a discussion of strengths and weaknesses of available project resources and the effectiveness of their use, see "Summary of Results" under Discussion section of the evaluation. The next section of this evaluation examines the process of project delivery.

Project Process:

To what extent were program development and observed instruction congruent with project goals and research on instructional effectiveness?

Instructional Organization- Across sites, the typical class sessions held during the project met for 32 hours per 8-week cycle. The GED prep program strand was individualized. The customized basic skills upgrading strand instruction was conducted as group classes, as were the shorter mini-math courses held at several of the plants toward the end of the grant funding cycle.

The nature of instruction and types of learning activities were determined through observation as well as interviews with both instructors and learners. Both learners and instructors reported that approximately 90% of instructional time was spent working independently, in small groups or pairs, with less than 10% of time spent working as a whole group. Records from 3 class observations by the evaluator indicated an average of 11% of instructional time spent in whole group instruction employing lecture techniques. This compares favorably with an ideal of less than 50% teacher-talk during any one instructional session (Goodlad). On-site interviews and observations occurred one time during the middle phase of the project, in October, 1991.

Instructional Engaged Time- Learner engaged times during observations was quite high. Most learners appeared to want to learn, seemed to enjoy moving through the instructional units, and spent 80%-87% of time in the classroom actually participating in learning activities. This compares favorably with engaged times of 40%-50% reported for observations of high school classrooms (Mikulecky). Adult learners came ready to work and managed twice as much effort per hour as adolescents manage in school rooms.

Instructional Quality- The quality of instruction provided by the materials has been discussed earlier in the Input section of this evaluation. It was, for the most part, quite adequate. All instructors observed had established good rapport with learners and took an active role in monitoring learner progress, encouraging learners, and providing explanations when necessary.

Solid judgements of the quality of instructor explanations of concepts are not possible given the fact that explanations and comments to learners were, for the most part, privately conducted one-on-one and could be overheard in less than a half dozen instances. In these instances, however, a good deal of variation existed in instructor ability to explain the thought processes for the job-related basic skills applications procedures being taught. One instructor was able to explain several approaches to mathematics in a manner which elucidated the thought processes involved. The other instructors observed fell back to simply repeating procedures from instructional materials, stating step-by-step processes for memorization. Little or no training was provided to either curriculum developers or instructors in how to model such thought processes. This is in contrast with current pre-service and inservice practices for workplace literacy instructors in both the military and private sectors that result in highly effective delivery of instruction through training that refocuses instructional delivery practices from the teaching of memorized procedures to the teaching of comprehension via modeling thought processes (metacognition).

Participants were given certificates at appreciation ceremonies held at the plants. Minimal attendance was required to receive a certificate, but was reported by project staff to be of high value to participants for recognition of their efforts. In addition, several sites gave gifts to the highest achievers.

For a discussion of project process, please see "Summary of Results" under Discussion section of the evaluation. Following receipt of final data, PPLC assessed program outcomes (or "product") to determine the degree of project effectiveness.

Project Product:

To what extent are there indicators of project effectiveness?

The C.I.P.P. model enables gathering of evaluation data from more than one source to promote triangulation of results in an attempt to arrive at valid conclusions concerning project effectiveness. PPLC evaluated the Greenville Training Opportunities Partnership Workplace Literacy Project from three different perspectives of the users:

- participant pretest/posttest scores and statements concerning achievement of personal learning goals and value of the course(s);
- anecdotal reports from instructors, recording participant applications of course content to work-related and everyday tasks outside of class;
- supervisor pre- and post-course ratings of participants with locally identified performance rating indicator snapshots; and,
- close-out focus groups conducted with project staff and with managers from partnering company plants.

Meeting Participants' Goals- The first aspect of project product effectiveness was the collection on pre- and post-program surveys and from on-site interviews of data concerning the degree to which participants in the various programs were able to achieve their personal learning goals. During interviews, most learners expressed satisfaction with the content of courses. A frequently mentioned asset was the building of confidence that enabled participants to use the skills they were learning in order to pass certification exams or GED tests. Participants at two locations mentioned their desire for more structured group work and less independent work. All commented on the helpfulness of the instructors. In asking learners to rate the program, the evaluator heard that the contents, instructors and schedules all earned "A" or "B" grades. Their reasons included liking the classes because they got their individual questions answered, well-prepared instructors who seemed to really understand participants' needs, convenience of meeting times and locations, and the relevance of materials to their personal goals.

When asked on post-program participant survey forms if they "would recommend participation in the program to a co-worker," 100% of the participants responding reported that they would. Only 21 post-program surveys were received by the evaluator; these were all from JPS plant sites: 9 from Parker, 2 from Slater, 1 from Monaghan, and 9 marked only as JPS. No surveys were received from Homelite. The survey forms administered were not the PPLC-created form, but a version that had been modified by the project staff. Questions pertaining to participant report of goal achievement had been deleted, so no information was available on this issue. During focus groups conducted by the evaluator at three sites, participants did reiterate many of the reasons they had given for wanting to take the course (see Context section of evaluation) as being accomplished. When asked where they were applying on the job the skills they were learning, learners responded:

- have to add and multiply; can't use a calculator
- have to figure yardage per pound, size formulas; in my job, math happens every 2-3 seconds
- use math doing inventory every month
- use fractions and rounding off with part dimensions

- use a computer for my job

When asked where they were applying in everyday life the skills they were learning, participants responded:

- in doubling recipes for my family
- figured out in my sewing how much material I needed to cover a trunk
- used it in preparing a Sunday School lesson for church
- calculated the interest on my money at the bank
- working on my taxes
- figured out how much interest I'd have to pay if I bought a new automobile
- knew how much I saved at K-Mart with 25% off sale
- am building a 4-wheel-drive vehicle from scratch; have to use measurements on it.

Of those 21 learners completing data collection forms that asked them to rate their program on polarized scales for the program's interest level, usefulness on the job, difficulty level, usefulness outside of work, and whether or not it had been what learners expected, the results as shown on Table 1 were obtained.

Table 1: Post-program participants' evaluation of course from analysis of responses to Item on Participant Post-Program Survey. n = 21

	5	4	3	2	1	
Interesting	91%	9%	0%	0%	0%	**Boring**
Useful on the job	33%	38%	29%	0%	0%	**Useless on the job**
Too difficult	9%	28%	52%	5%	6%	**Too easy**
Useful outside of work	57%	24%	19%	0%	0%	**Useless outside of work**
Exactly what I expected	33%	48%	14%	8%	0%	**Not at all what I expected**

From Table 1, one can conclude that 100% of the participants found the programs to be extremely to quite interesting. Seventy-one percent found them quite useful for their jobs. Fifty-two percent of learners rated the programs as being at the appropriate level of difficulty, i.e., neither too difficult nor too easy, while only 15 % found the programs to be completely out of their range of abilities, rating with a "5" or a "1." Eighty-one percent of learners also found program contents to be extremely to moderately useful outside of work. It is important to note that 81 % of learners reported that the program was exactly what they expected it would be, and another 29% felt that it was somewhat like what they expected it would be. This reflects appropriate advertising of program content and goals and is worth noting for future program promotions, as well. Please NOTE: Due to the small sample that was reported to the evaluator (21 surveys out of 535 participants), these data do not represent conclusive findings for the project as a whole.

Paired sets of participants' pretest-posttest scores were requested from all sites. Gains of approximately 50% were reported from the limited numbers of paired sets of data collected for the program math pre- and posttests. No TABE posttest scores were collected, since the primary purpose for administering this instrument was placement in appropriate program instructional strand. The absence of math posttest scores for many participants, due perhaps to high levels of dropping out, make it impossible to determine whether gains in math were actually achieved by more than a few program participants. The absence of any pre- and posttest reading scores cause gains in that area of instruction to be indeterminable. Differences in individuals' attendance time made comparisons across sites also impossible to obtain.

Table 2: Pretest/ posttest scores reported for program sites.

Program Site (No. of Participants; Average No. of Hrs. Attendance)	**TABE Reading No. of Scores/ Average Score**	**TABE Math No. of Scores/ Average Score**	**Pretest Math No. of Scores/ Average Score**	**Posttest Math No. of Scores/ Average Score**	**% of Gain for Paired Pre-/Post Math Scores (No.)**
Homelite (n=19; 24.47 hrs.)	n=16 20.8	n=16 18.3	n=15 56.8	n=5 92.8	48.75%
JPS Slater (n=24; 12.66 hrs.)	n=21 20.2	n=21 14.8	n=24 indecipherable	None reported	0%
JPS Parker (n= 58; 14.9 hrs.)	n=53 20.5	n=53 14.9	n=58 44.1	n=13 91.4	49.23%
JPS Dunean (n= 33; 4.39 hrs.)	n=29 22.0	n=29 14.6	n=23 57.9	None reported	0%
JPS Monaghan (n=14; 41.8 hrs.)	n=15 10.9	None reported	n=3 61.3	n=12 93.5	52.50%

Instructor Anecdotal Records- To determine how and if learners were transferring new concepts and skills to applications on the job or outside of work, PPLC requested site instructors to report any instances of participants referencing situations in which they were using outside of class what they learned. An anecdotal recordkeeping form was supplied for this purpose, but was not used by instructors. Information was gathered from only 2 instructors. Learner comments included references to: 1.), improved math ability on everyday life tasks, such as figuring percents, measurements, and discounts; 2.), preparing to pass entrance tests for college and technical courses; 3.), ability to assist children with homework; and, 5.), increased confidence and decisions to continue with more education.

Supervisor Ratings of Participants- Pre- and post-program participant ratings by supervisors were collected on performance indicator snapshot forms at all five sites. The specific behaviors attributed by supervisors to highly competent , average, and less-than competent employees in each category were:

I. Dependability

4	2	
5	3	1
Perfect attendance	On time and ready for work	Constantly late
Always meets or exceeds quality standards	Regular attendance	Frequently absent
Volunteers for overtime	Stays on job	Never wants to work overtime
Accomplishes more than what he says he will	Will work overtime when asked	Promises but does not deliver
	Quality of work within specifications	Does not meet production/quality standards
	Accomplishes what he says he will	
	Does what is required	

II. Team Work

4 2

5	3	1
Promotes team spirit in department to achieve goals	Offers to assist others when asked	Refuses to work with others in department
Makes constructive suggestions	Enjoys and gets along with others	Complains constantly
Accepts challenges	Demonstrates concern for others' feelings	Does not enjoy work or working with others
Constantly seeking to improve processes	Works independently; participates only as requested	Wastes time
Voluntarily gets involved with others' problems	Tries to participate in departmental efforts	Blames others for problems
Takes charge as a leader	Reports things that are amiss to others	
	Has few comments; just does his job	
	Goes along with others' suggestions	

III. Self Initiative

4 2

5	3	1
Does not wait to be told what to do	Good attitude; a steady employee	Usually fails to take charge of assigned task(s)
Initiates new ideas or ways to improve processes	Self-starter unless it is a new or different job task	Always waits to be told what to do next
Assists without being asked	Learns all aspects of current job duties	Always exerts minimal effort
Requires little or no supervision	Makes adjustments to new ideas and changes with minimal resistance	Never tries to advance
Requests experience beyond scope of present job duties	Content, comfortable with current job duties	Poor attitude
	Follows instructions	Shies away from opportunities to learn new jobs
		Exhibits or expresses some distrust of management

IV. Job Knowledge

5	4	3	2	1
Assesses progression of work in regards to quality and quantity standards		Relates problems to supervisor		Unable to asses progression of work in regards to quality and quantity standards
Assists other workers		Performs routine job tasks well; makes minimal errors		Always needing help
Demonstrates exceptional math and reading skills on the job		Demonstrates good math and reading skills on the job		Runs defective parts knowingly
Makes suggestions for improving processes or solving problems		Expresses or exhibits desire to progress to new areas of responsibility		Often reacts instead of acting
Exceeds requirements of job performance		Is knowledgeable about job		Makes frequent errors while using job reading and math skills
Can explain job duties and tasks to others		Is easily trained to perform new tasks		Fails to upgrade technical skills
Works with supervisor to solve problems		Adapts to changes in procedures		Does not understand what to do
		Follows quality procedures		Makes frequent errors while performing job tasks
				Requires additional training on new or changed procedures or tasks

V. Adaptability

4 2

5	3	1
Performs unusual tasks willingly	Cooperates as needed; performs unusual or new tasks with supervision	Complains when asked to do something out of the ordinary
Demonstrates acceptance of change and works hard to see that it succeeds	Helps others without complaining	Performs unacceptable work on any unusual or new tasks
Performs less desirable tasks willingly	Demonstrates reluctance, skepticism about change; shows preference to continue known tasks	Exhibits or expresses reluctance to take on any extra work
Attempts new things enthusiastically	Exhibits willingness to try new things	Refuses to help others
Volunteers to help others		

VI. Work Pride

4 2

5	3	1
Performs all aspects of work conscientiously	Does not volunteer for additional duties, but performs them when asked	Abuses company-provided equipment or tools
Produces above quality standards	Produces to quality standards	Performs below quality standards
Volunteers to works over when behind	Works overtime when asked, but does not volunteer	Refuses to perform additional duties
Demonstrates high self-esteem		Demonstrates low initiative

VII. Making Decisions

4 2

5	3	1
Judges work as good or bad without assistance	Occasionally makes decisions on own	Waits until told before beginning anything
Usually makes decisions on own	Exhibits mature behavior	Shows low concern about production or quality
Uses own judgement about when to start next job	Starts jobs as they are assigned	Exhibits immature behavior
	Asks for approval before starting next job	

VIII. Leadership

4 2

5	3	1
Expresses a desire to excel	Learns to work with others and how to instruct if necessary	Gives poor instructions
Thinks for himself and takes action to perform tasks or solve problems	Gathers information from others to be able to begin a task	Waits to be told to begin a task
Trains quickly	Demonstrates willingness to learn and asks questions	Expresses no desire for improvement
Takes initiative to ask questions to upgrade job knowledge	Follows set procedures without error	Work requires additional inspection
Voluntarily helps others		Blames others; demonstrates unwillingness to accept blame for own mistakes
Requests additional training		Constantly behind in work
Sees ahead what's happening next		Refuses help from others, even when needed
Takes charge of assigned tasks readily		
Is seen to be trusted by coworkers		
Exhibits confidence in being able to perform job tasks well		

IX. Taking Responsibility

4 2

5	3	1
Demonstrates willingness to accept responsibility	Accepts responsibility when asked to	Exhibits or expresses unwillingness to accept responsibility
Volunteers for or requests opportunity to perform new or additional tasks	Corrects processes as instructed	Blames others for mistakes
Looks beyond problems for causes		Waits to be told or shown what to do
Looks ahead to suggest improvements		

X. Resolving Conflict

4 2

5	3	1
Willing to listen to others' views	Makes suggestions for resolving conflict when asked	Keeps trouble stirred up; keeps team disrupted
Is seen as having respect of coworkers	Makes suggestions about the causes of a conflict	Exhibits or expresses constant unhappiness with his job
Other workers ask him to arbitrate in conflicts		Demonstrates inability to stay focussed on job details; becomes emotional
		Demonstrates unwillingness to listen to views of others

Results and impact by site on supervisor-identified attributes are given below site. Differences were analyzed by compiling individual ratings for each attribute for each site. In general, across all five sites supervisors reported that after participating in the program, employees exhibited more of the behaviors attributed to highly competent workers and average workers than they had before taking classes. This was evidenced by ratings that changed from 2 to 3, 3 to 4, or 4 to 5.

JPS Monaghan Performance Indicators Results (n = 126)					
Categories	**5 pre/post**	**4 pre/post**	**3 pre/post**	**2 pre/post**	**1 pre/post**
Dependability	2% / 9%	57% / 55%	40% / 35%	1% / 1%	0% / 0%
Teamwork	1% / 6%	11% / 33%	62% / 42%	26% / 19%	0% / 0%
Self Initiative	0% / 1%	7% / 18%	40% / 42%	52% / 38%	1% / 1%
Job Knowledge	0% / 2%	18% / 36%	64% / 52%	18% / 10%	0% / 0%
Adaptability	0% / 1%	2% / 9%	47% / 52%	49% / 37%	2% / 1%
Work Pride	0% / 2%	20% / 39%	60% / 48%	19% / 10%	1% / 1%
Make Decisions	0% / 1%	2% / 7%	41% / 52%	56% 40%	1% / 0%
Leadership	0% / 0%	2% / 5%	29% / 34%	69% / 61%	0% / 0%
Take Responsibility	0% / 0%	0% / 32%	54% / 56%	45% / 12%	1% / 0%
Resolve Conflict	0% / 2%	1% / 40%	54% / 48%	40% / 10%	5% / 0%

JPS Dunean Performance Indicators Results (n = 72)					
Categories	**5 pre/post**	**4 pre/post**	**3 pre/post**	**2 pre/post**	**1 pre/post**
Dependability	42% / 37%	39% / 40%	19% / 7%	0% / 0%	0% / 0%
Teamwork	8% / 16%	47% / 47%	39% / 20%	6% / 1%	0% / 0%
Self Initiative	8% / 10%	23% / 31%	39% / 66%	3% / 4%	0% / 0%
Job Knowledge	19% / 23%	50% / 43%	31% / 18%	0% / 0%	0% / 0%
Adaptability	3% / 7%	29% / 39%	61% / 37%	7% / 1%	0% / 0%
Work Pride	12% / 18%	54% / 47%	32% / 19%	1% / 0%	1% / 0%
Make Decisions	0% / 4%	23% / 26%	67% / 51%	10% 3%	0% / 0%
Leadership	0% / 1%	23% / 28%	51% / 46%	25% / 9%	1% / 0%
Take Responsibility	3% / 7%	32% / 34%	45% / 38%	19% / 5%	1% / 0%
Resolve Conflict	4% / 4%	20% / 29%	57% / 48%	18% / 3%	1% / 0%

(16% of Evaluations were not completed)

JPS Parker Performance Indicators Results (n = 74)

Categories	5 pre/post	4 pre/post	3 pre/post	2 pre/post	1 pre/post
Dependability	30% / 40%	49% / 49%	17% / 1%	4% / 0%	0% / 0%
Teamwork	30% / 47%	35% / 42%	27% / 1%	8% / 0%	0% / 0%
Self Initiative	15% / 35%	39% / 51%	39% / 4%	7% / 0%	0% / 0%
Job Knowledge	21% / 37%	48% / 53%	28% / 0%	3% / 0%	0% / 0%
Adaptability	21% /36%	42% / 51%	32% / 3%	5% / 0%	0% / 0%
Work Pride	26% / 40%	41% / 50%	29% / 0%	4% / 0%	0% / 0%
Make Decisions	16% / 23%	29% / 64%	40% / 3%	15% 0%	0% / 0%
Leadership	25% / 29%	21% / 56%	43% / 5%	11% / 0%	0% / 0%
Take Responsibility	21% / 26%	38% / 62%	33% / 2%	8% / 0%	0% / 0%
Resolve Conflict	10% / 23%	33% / 66%	41% / 1%	13% / 0%	3% / 0%

(10% of Evaluations were not completed)

JPS Slater Performance Indicators Results (n = 79)

Categories	5 pre/post	4 pre/post	3 pre/post	2 pre/post	1 pre/post
Dependability	19% / 32%	42% / 47%	34% / 15%	4% / 0%	1% / 0%
Teamwork	10% / 19%	27% / 46%	54% / 27%	9% / 2%	0% / 0%
Self Initiative	3% / 16%	26% / 34%	54% / 39%	16% / 5%	1% / 0%
Job Knowledge	11% / 17%	30% / 57%	51% / 20%	8% / 0%	0% / 0%
Adaptability	4% /14%	28% / 39%	58% / 41%	9% / 0%	1% / 0%
Work Pride	10% / 22%	29% / 40%	55% / 32%	6% / 0%	0% / 0%
Make Decisions	5% / 11%	23% / 27%	54% / 56%	17% 0%	1% / 0%
Leadership	4% / 10%	16% / 25%	53% / 55%	26% / 4%	1% / 0%
Take Responsibility	5% / 12%	23% / 32%	58% / 47%	13% / 3%	1% / 0%
Resolve Conflict	1% / 8%	21% / 30%	62% / 55%	15% / 1%	1% / 0%

(6% of evaluations not completed due to attrition)

Homelite Performance Indicators Results (n = 50)					
Categories	**5 pre/post**	**4 pre/post**	**3 pre/post**	**2 pre/post**	**1 pre/post**
Dependability	8% / 20%	54% / 40%	34% / 18%	4% / 0%	0% / 0%
Teamwork	10% / 15%	40% / 49%	44% / 24%	6% / 0%	0% / 0%
Self Initiative	6% / 12%	16% / 30%	56% / 34%	20% / 2%	2% / 0%
Job Knowledge	4% / 8%	45% / 46%	37% / 24%	10% / 0%	4% / 0%
Adaptability	4% /14%	36% / 39%	50% / 23%	10% / 2%	0% / 0%
Work Pride	10% / 18%	52% / 50%	32% / 10%	6% / 0%	0% / 0%
Make Decisions	0% / 4%	19% / 32%	55% / 40%	24% 2%	2% / 0%
Leadership	2% / 2%	20% / 30%	48% / 40%	28% / 6%	2% / 0%
Take Responsibility	2% / 6%	34% / 34%	48% / 38%	16% / 0%	0% / 0%
Resolve Conflict	0% / 0%	18% / 28%	60% / 50%	20% / 0%	2% / 0%

(22% of evaluations were not completed)

Outcomes from Close-Out Focus Groups with Project Staff and with Partners: During the focus group conducted with the project staff, the following issues were raised and discussed.

- *Continued provision of services to the partnering company sites in the future-* Homelite has new plant manager; thought they would want to continue program. JPS Dunean probably will not continue due to poor attendance. Monaghan probably will continue, but without recordkeeping strictly on voluntary employee time. Parker and Slater JPS sites unknown.

- *Problems with attendance-* Instructors expressed concern over the "tremendous" drop-out rate and attributed it partially to the logistics of rotating shift times and participants not always scheduled to come directly before or after a work shift. One instructor thought after shifts was the best time to maximize attendance. Another noted that payday interfered with class time remaining a priority. The Dunean instructor reported that none of her students could attend class more than once per week and that this made it difficult to keep participants motivated. Suggestions for improving this problem included paying participants each time they completed a segment of instruction, such as a workbook, or using more computer-based instruction, or operating all classes on clock time and for shorter structured cycles, like the SPC Prep Mini-math courses, rather than open-entry/open-exit as they currently run.

- *Using counselors in the program to aid comfort levels and retention of participants-* The staff described several examples of specific instances when counseling had uncovered potential problems and solved them, such as identifying a deaf participant and obtaining a paid translator to assist; retaining several participants by explaining the difference of individualized instruction versus whole group instruction; and, calling instructors to ensure that a shy participant received extra attention when needed. The counselors and director, however, felt that overall the counseling component had not been effective. It may have resulted in the retention of approximately 25% of potential program drop-outs, but was designed more for those who were chronic absentees rather than the attenders. The counselors each visited classes on a regular basis, but found that those participants who needed their services most,were the ones who were not in class. Additional problems were perceived to be the inability to discuss participant problems with instructors during class visits because of the quiet nature of independent study; and the discomfort of the participants with using counselors. Staff reported that when participants were not coming, it was for reasons that were external to the program, usually stemming from life and family constraints that precluded continuing to pursue learning.

The focus group conducted with the managers representing each of the partnering plants addressed issues of concern to them, namely:

- *Lack of employee participation in the program voluntarily-* Managers commented that share time or monetary incentives might have increased the number of participants. Being a "no frills", low-budget industry, they feel unable to pay for full release time for employees to participate in the program. Several noted the difference in attendance for the SPC Prep course and for the original strands of the program. They offered examples of employees who had given verbal praise for the program, but did not have any quantifiable measures for determining cost benefits at the time of the focus group. Without some form of job impact data, the managers felt that they could not request release time from higher levels of management

- *Selection of site-compatible instructors-* Several managers commented on the lack of worksite political sophistication exhibited by several of the instructors while on site. They felt that having more input into the criteria for selecting instructors or into the required training for them or in participating in the hiring/ interview process would have resulted in a better "fit" between plant personalities and needs and the program instructors.

Discussion

Limitations of this study- Two factors limited the ability of this study to draw definitive conclusions from the evaluation. The first was the inconsistency of data able to be collected across sites. The budgeted time and financial resources allotted to project evaluation, i.e., 10 staff days, resulted in insufficient time available for thorough and complete investigation of aspects concerning each program delivery site.

The second limiting factor was the difficulty experienced by the evaluator in collecting and obtaining some of the requested data from the program providers in the formats required for inclusion in the evaluation. Unfortunately, the absence of some key program measures that were requested throughout the project severely limits the evaluator's ability to draw conclusions about the overall effectiveness of this demonstration.

Summary of Results- The following statements provide summary and discussion of key findings from the evaluation of project context, input, process, and product.

Context - The extent to which the goals and philosophy of the project were shared by key project personnel and learners was found to be as follows:

Areas of consensus: There was a good deal of consensus about program goals among the project director and the program curriculum developers. All highlighted the importance of the instruction as a means for mastery of basic skills for both everyday life and applications to job tasks and requirements. Participants also commented on their desire to improve these skills and on the programs' relevance to accomplishing their personal goals.

Areas of divergence: The main areas of divergence were evidenced during interviews in the responses from the instructors and the plant managers, namely their reluctance to commit to goals for totally job-relevant programs. They all commented on their desire to make the programs more oriented toward worker self-actualization , rather than adhering to the program's published purpose of providing the job-specific workplace programs agreed to by the college and the partnering companies in order to obtain the grant monies. There appeared to a lack of understanding among the instructors and among the managers about the nature of the project and of a functional context design for workplace literacy instruction. The existence of such mixed philosophies between the curriculum developers and instructional deliverers and business partners was in direct conflict with the developer's goals for the project.

These observations should not be taken to mean that instructors were not doing their jobs or that managers did not involve themselves with program activities. Participants expressed indications that they perceived themselves to be learning skills they could apply in the workplace and everyday activities and were having their needs met. Most learners were satisfied with their experiences, sometimes because of instructor personal attention. Managers also reported checking with individual participants to monitor program activities.

It may be, however, that the orientation activities for the project staff and management partners were less than adequate. The informal and minimal pre-service training provided for instructors was insufficient to guarantee their internalizing program goals. With such brief and erratic training, it is likely that instructors will maintain whatever learner goals they have used previously. With development of instructor training materials carefully structured to include guidance, modeling, and post-training assessment of delivery skills, this problem might have been alleviated.

Additionally, the absence of mention of work-related program goals by most of the managers caused identification of cost benefit indicators for benchmarking and measuring program impact on the organization very difficult, if not impossible. This meant that the program outcomes were only perceived and evaluated as education for individuals, rather than as value-added training benefitting the organization as well as for the individual. As such, there is an inherent danger that the program is, at best a charitable endeavor and at worst, a duplication of existing community education services for which the companies already pay tax dollars. In addition, if plant managers do not perceive the program to be of value to the organizational goals at their site, workers may also doubt its value. Conducting a program on employee volunteer time adds to this program devalued image, as well. The seeming lack of understanding among plant managers of the general purpose of the workplace literacy demonstration and of their need to identify and document impact on their organizations might have been avoided by a more comprehensive presentation of grant purpose and requirements to potential business partners prior to submitting the grant proposal.

Input- The availability to the project of resources during development and implementation and to what extent they were effectively used was found to be as follows:

Strengths and Weaknesses - Resources for program development appeared adequate financially for instructional delivery, and realistic materials development time lines impacted little on the stress level of the developers. The curriculum materials developed for the program, however, contained few job task examples of skill applications to enable learners to practice skills in ways they would use for the workplace. The content of several units of instruction in the customized course materials included a number of previously published excerpts from other commercially available sources. Using others' words and ideas anonymously, without first obtaining written permission from the copyright holders and authors, is a major flaw in the curriculum design and development of these particular programs. Inclusion in subsequent publishing or dissemination of project curricula could also lead to legal ramifications for the project administrators.

Additionally,the absence of pre- and posttests in the customized courses precluded the collection of conclusive evidence on curriculum materials effectiveness. Writing customized pre- and post-tests to include in the reading and math courses developed for JPS and Homelite would have enabled measurement of participant mastery of what had been taught. Several instructors expressed slight dissatisfaction and confusion with some of the customized functionally contextual curriculum materials. Had the developers provided a more in-depth instructor training and instructor scripts and guidelines to accompany the use of the customized curriculum and integrated commercial materials, this problem might have been overcome.

Counseling services for participants were provided to enhance retention. Project staff indicated that the attendance of counselors to class sessions proved to be an impractical use of this resource because of the real need to be counseling absentees rather than attendees and because of the difficulty in building rapport with participants in classroom settings.

Either using the counselors as off-site visitors to follow-up on absences or creating an actual worksite contact location out of which counselors could operate on a regular basis might have improved the quality and effectiveness of interactions with program participants.

Instructor, counselor, director and curriculum developer qualifications and previous experience were rich and highly professional; they provided a definite enhancement to the program overall. Criteria might be derived from a composite profile of the qualifications and background of these key personnel for use as hiring guidelines for project or program institutionalization or replication.

Instructor training sessions proved to be inadequate; they did not provide the total support system that the program needed for full acceptance by the instructors, congruence of purpose and mastery of instructional techniques. The brief, informal deliveries of program overviews addressing the functional context workplace literacy curricula did not satisfactorily meet the needs of project personnel for preparing to become workplace instructors or for ongoing support necessary for part-time, geographically isolated staff.

Process- The extent to which program development and observed instruction were congruent with program goals and research on instructional effectiveness follows:

Areas of convergence and divergence: Learner engaged time was quite high and learners spent 80-87% of time in the classroom actually participating in skill building activities. Both instructors and participants appeared motivated to take full benefit of instruction time and took pride in the efforts made.

The quality of instruction was good overall. Each instructor that was observed appeared to be engaged in "reciprocal learning" with the learners and displayed a caring attitude and willingness to assist learners achieve their goals. Evidence varied from instructor to instructor in ability to demonstrate the thinking processes necessary for applications of workplace basic skills to be taught effectively.

The project well exceeded its goal for providing assessment for 600 workers and services to approximately 450 participants with records of assessments of 1134 workers and total enrollments of 535 workers. This is a strong indication that overall, recruitment and everyday relationships with partnering organizations were operating well. The programs that reported dwindling attendance were those designed to provide open-entry/ open-exit self-selected individual study on a voluntary basis. This may have been due to the generic content of those courses not directly focused on transfer of learning to improvement of performance of job applications of basic skills. The participants may not have been aware of the connection of workplace literacy with *training*, i.e., the impact on organizational improvement as well as individual improvement, in contrast with *education* which impacts only on the individual. In addition, it may reflect on the seeming inappropriateness of design of unstructured, lengthy commitments to educational programs for use by working adults. The workplace programs that are most effective in retaining participants are those of limited duration, e.g., 7-10 week instructional cycles that are manageable for short-term integration with participants' daily schedules, and programs that are directly linked to supporting organizational training needs.

Product- The impact of the program was assessed with a combination of indicators, including comments from learners and instructors, and supervisor ratings. A summary of the results follows.

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Business and industry organizations normally evaluate training on four levels. Because workplace literacy programs are directly related to assisting workers attain career goals by meeting job requirements and improving performance on job tasks, it is appropriate to measure program outcomes using this yardstick:

Level I- does the proposed program match with an identified organizational need? In this case, the project programs were desired by each of the partnering organizations to enable their members to function better through improved workplace applications basic skills. The grant application shows that specific job tasks and special needs of each cooperating organization were to be identified and targeted. The job tasks and requirements were carefully selected and analyzed through DACUM job analyses, the results of which were to be utilized for customized workplace literacy curriculum development.

Level II- do the participants selected for training master the content of the training program? Absence of sufficient numbers of paired sets of data from participant scores on pre-/posttests resulted in the need to turn to ancillary sources for evidence of mastery of content. Limited numbers of instructor anecdotal reports and post-program statements by participants compared to pre-program goal statements, provide inconclusive evidence that participants mastered the content of the programs for which this data was collected.

Level III- do those participants who master training demonstrate improved job performance in areas identified as critical to show positive transfer of learning? Comparing pre- and post-program local performance indicator snapshot ratings of participants by their supervisors indicated that in every category of the identified performance attributes supervisors noticed positive changes in employee performance. Supervisors who saw improvements were able to identify specific observable, measurable behaviors that demonstrated positive transfer of instruction to job tasks. Because the actual content of course materials does not directly address the observed job applications, and because of the lack of adequate numbers of pre- and posttest scores collected, it is impossible to determine whether participant improvements in performance are the result of mastered learning or of improved self-esteem.

Level IV - does impact on performance lead to demonstrable cost benefits, i.e., money saved or generated, by the positive changes in employee behavior? In this case, the organizations indicating positive program impact did not report any cross-referencing of individual productivity or behavioral indicators with performance appraisals, the supervisor ratings and instructional objectives of the programs. No data exists, therefore, for determining the possible cost-benefits derived from employee participation in the programs. The absence of actions under consideration, or already taken, by some of the partnering business organizations to continue programs beyond the grant period, along with lack of evidence that managers understood the goals and purpose of the program, does not indicate company perception of or satisfaction with services as beneficial for their organizations.

Conclusions and Recommendations

Based on the results of this evaluation, the following conclusions and recommendations concerning stated grant goals are offered.

There is strong evidence showing:

- that the project programs implemented targeted and delivered services to a minimum of 150 workers at each industry location and using initial assessment scores to identify eligible program participants.

There is only a moderate amount of evidence indicating:

- evidence of successful program implementation through the use of appropriate processes for participant recruitment, class scheduling, development of individual education plans, curriculum delivery, pre- and post-assessment, and instructor training and support, that are academically and organizationally sound and that match with program goals.

- evidence of the offering of additional services to each project participant through the use of an individualized program of literacy instruction, supported by personal counseling, tutorial services, child care, and/or transportation assistance, and subsequent course completion by 60% of participants or more.

- evidence of a reduction in the incidence of workplace literacy in Greenville

County through the establishment of workplace literacy partnership programs at three area companies and assessment of at least 200 employees of each company.

Recommendations:

1. Strengthen curriculum delivery through structured instructor pre-service and inservice training that addresses the differences between customized functionally contextual materials and academic basic skills materials. Provide modeling of instructional techniques and an overview of required recordkeeping and data collection activities. Create pre- and post-assessment instruments for each customized course. Meet with instructors to develop local indicators for ranking participant progress with GED and commercial materials. Have instructors create and use a system of portfolio assessment with weighted captions so that samples of achievement will be available to measure progress for participants who are persisters or leavers of the program.

2. Improve the delivery of counseling services to focus efforts on working absentees rather than with class attendees. Establish worksite locations for delivery of ancillary, on-going counseling services to targeted program participants. Divert unused funds from child care and transportation support services to other areas of program development and implementation. Look for alternate methods to enhance retention of participants, such as 1.,structuring classtime into smaller cyclical units to suggest closure on instructional topics in shorter periods of time; and,

2., promoting the program at worksites as *value-added (HRD) training* that is directly related to and impacts on the company(s) as well as the individual workers, rather than as *education* that benefits only the individual.

3. Comparison of supervisor pre- and post-program performance indicator snapshot ratings of participants indicate positive change in observed employee behaviors; pre- and posttests for the content of the customized instructional materials need to be developed in order to demonstrate that the content of instruction was mastered and is related to the cause of these improvements due to positive transfer of learning to job performance.

There is little or no evidence showing:

- evidence of the development of a training methodology for adult learners that meets specific workplace needs, with individualized materials for each industry that utilize that industry's available job-related materials.

- evidence of a smooth instructional flow of activities within the developed curricula, reflecting a sound developmental approach to mastering those literacy skills necessary for competent performance of identified job tasks.

- evidence that measurement of the impact of training on project participants was conducted via internal evaluation processes that tracked 1, literacy skill achievement by means of pre- and post-test scores; 2, job productivity; and 3, personal growth and development.

- evidence of a county-wide awareness campaign about adult literacy conducted through various local media and of a final project report on methodology and results available for national dissemination.

Recommendations:

1. Use the results of the DACUM in conjunction with actual observations of job tasks being performed by competent workers. Analyze the applications of basic skills and thinking strategies as seen in competent performance of organizationally critical job tasks. Model these job applications of literacy skills within each unit of instruction, rather than modeling applications of skills on everyday life or academic examples. Demonstrate step-by-step instruction in the metacognitive aspects of transfer of learning to new applications, focussing on workplace examples in both direct instruction and practice exercises. Emphasize the *how* of skills application processes, rather than the *what* of content or format. Customize curriculum design for each company instead of using an academic context for the instructional blueprint that appends only a minimum of workplace-specific examples to lessons.

2. Develop original materials based on the critical tasks identified by each partnering company in the up-front job analysis. If materials from other existing sources need to be integrated as occasional examples, use them

sparingly after obtaining permission; always identify the source(s) of such materials, wherever they appear.

3. Pretest scores and counselor statements written on intake forms demonstrate project interest in benchmarking start-up conditions. Follow through with the diligent collection post-program data in order to provide evidence of participant progress toward mastery of instructional objectives and development of personal growth. Job productivity is difficult to establish without company agreement(s) to identify, collect, and make available information on individual productivity indicators. The local performance indicator snapshot ratings satisfy the need for evidence that indicates transfer of learning to job performance and support of organizational goals. The addition of pre- and posttests to the customized curricula would more strongly connect improved performance to program content.

4. Prior to contacting local media, be certain that community awareness has been built on issues of workplace literacy and its purpose in the context of a broad-based definition. This will eliminate some of the negative connotations accompanying words like *literacy* and *basic skills*. Be sure to obtain company and participant permission before inviting media coverage of the program. Work with local reporters, the Chamber of Commerce, community service organizations,etc. to encourage a community-wide "team" approach to bettering economic conditions for all citizens through support and interest in programs such as yours.

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METHODOLOGY GUIDE

T. O. P.
(TRAINING OPPORTUNITIES PARTNERSHIP)

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INTRODUCTION

INTRODUCTION

The world of work is changing. Technological advancement and global economic forces are redefining the American workplace. Computers and robotics now allow fewer workers to do the work once required of many. Global competition demands maximum productivity and efficiency of American companies. Increased employment opportunity in service-based industries has thrust more workers into managerial participation.

The common element in this changing workplace environment is the requirement of higher levels of education than demanded in jobs of the past. The new technology must be understood. Information must be analyzed and decisions made. Production and control systems are no longer a purely administrative domain.

Into this workplace comes a workforce ill-prepared to answer its demand. One of every five American workers reads at or below the eighth grade level. As many as 80 percent of job applicants are unable to pass basic employment exams in English and math. Between 20 and 40 million adults are believed to be illiterate.

The economic and business costs of this problem are severe. Those who do not have basic skills may have difficulty in finding and keeping jobs. On the job, billions of dollars are lost when workers make costly mistakes or receive injuries when instructions or warnings cannot be read or understood. The biggest cost of illiteracy, however, may be the one that is hardest to measure: the loss of self-esteem felt by a worker who is undereducated and undertrained.

In the past, literacy at work was not the paramount issue it is today. The dramatic need for basic skills enhancement has been addressed by the National Workplace Literacy Program, which requires a cooperative partnership between education and industry to develop and demonstrate innovative work-based literacy programs.

The Training Opportunities Partnership (T.O.P.) is a workplace literacy project funded through the National Workplace Literacy Program for the project year 1991. The Department of Education grant was awarded to Greenville Technical College in partnership with five manufacturing industries. The program goals and methodology are the topic of this report.

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GOALS

T.O.P. PROJECT GOALS

1. To improve the productivity of the labor force through improvement of the basic literacy skills needed in the workplace; and

2. To enhance workplace literacy by collaborating with industry:
   - to provide the resources necessary for literacy training in the workplace;
   - to reach employees who otherwise would not have access to literacy programs.

Several measurable objectives were established to achieve the project goals:

OBJECTIVE 1 To reduce the incidence of workplace illiteracy in Greenville County by establishing a partnership with three area companies that will provide for the assessment of at least 200 employees of each company during the eighteen-month project period.

OBJECTIVE 2 To develop a training methodology for adult learners to meet specific workplace needs. Training materials will be individualized for each partnership industry and will utilize that industry's available job-related materials.

OBJECTIVE 3 To offer the developed literacy training to at least 150 employees of each partnership industry during the project period. The specific training suggested for each targeted employee will be based on that employee's initial assessment scores.

OBJECTIVE 4 To offer additional services to each project participant through the use of an individualized program of literacy instruction that is supported by personal counseling, individual and/or group tutorial services, child care, and/or transportation assistance. These additional support services are expected to increase the average course completion rate from 50 percent to at least 60 percent or more.

OBJECTIVE 5 To measure the impact of training on project participants through an evaluation process of tracking skill achievement, job productivity, and personal growth and development.

OBJECTIVE 6 To evaluate the impact of project training on the partnership industries through an assessment by management and/or supervisory personnel of individual employee productivity.

OBJECTIVE 7 To evaluate the project methodology by determining original literacy levels of project participants through initial assessment scores and comparing these scores to post-training test results.

OBJECTIVE 8 To prepare a final project report on the methodology and results of the project that will be available for dissemination to interested groups and institutions statewide and nationwide.

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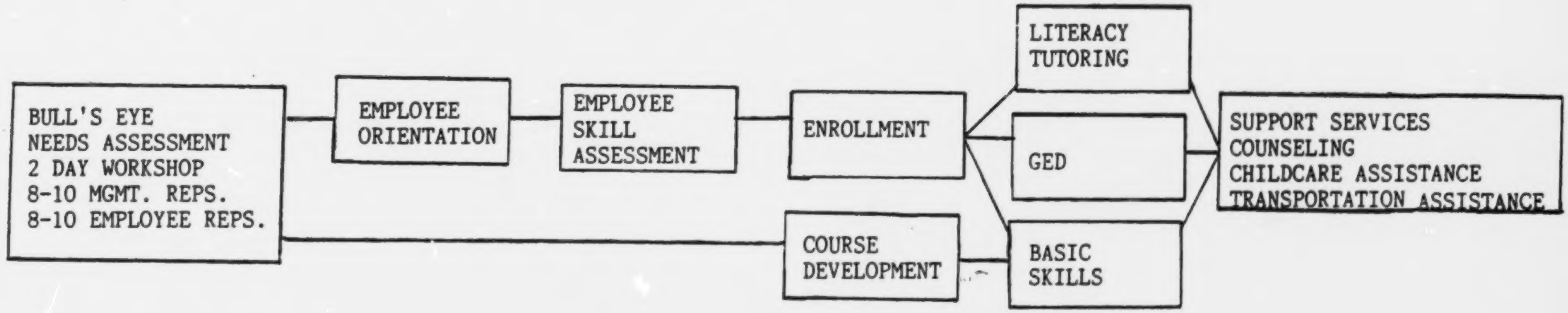
PARTNERSHIP

FLOW CHART

NATIONAL WORKPLACE LITERACY GRANT
NO. V198A10150
T.O.P. PROGRAM
(TRAINING OPPORTUNITIES PARTNERSHIP)
ACTIVITY FLOW CHART


BULL'S EYE
NEEDS ASSESSMENT
2 DAY WORKSHOP
8-10 MGMT. REPS.
8-10 EMPLOYEE REPS.
EMPLOYEE ORIENTATION
EMPLOYEE SKILL ASSESSMENT
ENROLLMENT
LITERACY TUTORING
GED
BASIC SKILLS
COURSE DEVELOPMENT
SUPPORT SERVICES
COUNSELING
CHILDCARE ASSISTANCE
TRANSPORTATION ASSISTANCE

TRAINING
OPPORTUNITIES
PARTNERSHIP

METHODOLOGY

PROJECT METHODOLOGY

During the grant proposal phase of the T.O.P. program, local industries were identified to serve as partners in the cooperative demonstration project. At that time, three partners indicated their commitment to participate. At the time of funding approval, one industry found it necessary to withdraw from the program. This allowed the expansion of the program to additional sites, resulting in the inclusion of five manufacturing industry partners. They were as follows:

JPS Converter and Industrial Corp. - Monaghan Plant
JPS Converter and Industrial Corp. - Dunean Plant
JPS Converter and Industrial Corp. - Slater Plant
JPS Automotive Products Corp. - Parker Plant
Homelite Division of Textron, Inc.

Implementation of the program was completed utilizing the steps presented and explained here.

1. Needs Analysis or Job Task Analysis

To identify the specific literacy training needs of each company, an intensive needs analysis was performed on site utilizing the "Bull's Eye" Approach to Specialized Program Development. This method involves a DACUM (Developing A Curriculum) process that relies on input from both management and labor. Workshops are held on two consecutive days. On the first day, management representatives tackle the task of identifying the specific literacy skills used on the job. The product of this listing is a matrix of skill requirements. This matrix is presented on the second day to hourly personnel representatives who modify or approve what the management team has suggested. A copy of a DACUM chart is included here.

HOMELITE T.O.P. PROGRAM
NEEDS ASSESSMENT

MAJOR COMPETENCY	SKILL APPLICATIONS		
A. READING	1 Safety Rule Sheets	2 General Plant Rules	3 Safety and Chemical Warnings (House signs)
	4 Chemical Training Sheets	5 Employee Handbook	6 ELF System Terminology (alphabet and numbers)
	7* Plant Terminology (recognize and understand)	8** Forms	9*** Charts & Graphs
	10 Bulletin Boards	11 Plant Newsletter	12**** Material Reference Books

PLANT TERMINOLOGY

*SPC
Blue Prints
Process Sheets
Work Orders
Routing Sheets
Pareto charts
AQL
Standard Deviation
  Mean
  Range
  Tenths
  Thousands
  Millionths
Coolant
Safety data sheets
DMR
Productivity Standards
  and Performance
  Utilization

Diamond
Inserts
Boring bars
Drills
Reamers
Countersinks
Feeler gauges
Basic Tool Names
Rockwell
Shems
AA
Geometric Tolerancing
Gibbs, Ways
Dykem
Indiron

FORMS

**T & P Tickets
Operation Routing Cards
Fabrication Travel Tickets
Insurance
Special Handling Tickets
Rejects
Directions on machines

CHARTS AND GRAPHS

***Quality Assurance
  charts and graphs
Manpower Productivity
  Performance
  Utilization

MATERIAL REFERENCE BOOKS

*****MPS
CRT Commands (computer language)

HOMELITE T.O.P. PROGRAM
NEEDS ASSESSMENT

MAJOR COMPETENCY	SKILL APPLICATIONS		
B. WRITING	1 Plant Terminology	2* Forms	3 Idea Expression
	4 Writing in Logs		
	FORMS *Scrap Reports Defective material reports Time and production reports Status reports Work orders Tool requisitions Shift communication memos Process operating details SPC charts Pareto charts Equipment damage reports Gauge requisitions Quality circle presentation Corrective action interview Stock forms Inventory tickets Gate passes Group production tickets Gauge tickets Fabrication tickets Disability forms Unemployment forms Payroll deduction forms Savings bond W-4 forms Application forms I-9 forms Routing tickets "Let's Communicate" forms Insurance forms Vacation requests Job Bid forms		

HOMELITE T.O.P. PROGRAM
NEEDS ASSESSMENT

MAJOR COMPETENCY	SKILL APPLICATIONS		
C. COMPUTATION	1* Counting	2** Add, Subtract Multiply, and Divide	3*** Fractions and decimals
	4 Understand Positive (+) and Negative (-) values	5**** Scales and Measurements	6***** Percentages
	7 Tolerance - range variance	8 24 hour time clock system	9 Reading graphs (tangents, radius, angles)

COUNTING

*Parts
Figuring hours on job
Figuring Production (Rejects/Reworks)

BASIC COMPUTATION

**Figuring Production (subtraction/multiplication)
Using gauges to check parts (division)
Recording Inventory
Scheduling production
Checking production (averaging)
Figuring machine adjustments
Determining parts required for assemblies (overages or shortages)
Figuring dimensions (Blueprints)

DECIMALS

***Reading decimals to make machine settings/adjustments, using blueprints, process sheets

SCALES AND MEASUREMENTS

****Micrometers
Caliphers
Gauges
Scales
Volume and weight
Comparators
Arithmatical Average (surface finish)
Inches, feet
Metric and US

PERCENTAGES

*****Understanding how percentages are figured
Figuring payroll
Figuring production

HOMELITE T.O.P. PROGRAM
NEEDS ASSESSMENT

MAJOR COMPETENCY	SKILL APPLICATIONS		
D. ORAL COMMUNICATION	1 Basic Grammar	2 Comprehension "Listening Skills"	3* How to speak up, present ideas, be assertive
	4 Ask questions	5 Direct terms for clarity	6 Job interviews (promotion/transfer)
	EXAMPLES Explain problem to co-worker or supervisor Explain physical problem to nurse Share shift change information Explain operations/procedures to co-worker		

HOMELITE T.O.P. PROGRAM
NEEDS ASSESSMENT

APRIL 29 AND 30, 1991

FACILITATOR: Joan Mason, Greenville Technical College
Helen Clarkson, Greenville Technical College

RECORDER: Al Stokes, Greenville Technical College

PANELISTS: Ed Hindman, Personnel Manager
Homelite, Division of Textron, Corp.
Susie Fontenot
Homelite, Division of Textron, Corp.
Gene Phillips
Homelite, Division of Textron, Corp.
Lee Cox
Homelite, Division of Textron, Corp.
John Pruitt
Homelite, Division of Textron, Corp.
Merle Arseneau
Homelite, Division of Textron, Corp.
Tim Howell
Homelite, Division of Textron, Corp.
Nick Zatorsky
Homelite, Division of Textron, Corp.
Jennie Weathers
Homelite, Division of Textron, Corp.
Gay Henson
Homelite, Division of Textron, Corp.
Lib Hammett
Homelite, Division of Textron, Corp.
Donna Mills
Homelite, Division of Textron, Corp.
Jackie Cantrell
Homelite, Division of Textron, Corp.
Mable Pendergrass
Homelite, Division of Textron, Corp.

2. Curriculum Development

The final training needs chart is the primary source of information used by the course developer in preparing the functional context curriculum appropriate to each training site. Where necessary for greater clarity in identify skills needs, on site observation and interviews are also performed. Full curriculum packages may be requested.

3. Employee Orientation

Presentations were made by the Project Director at all industry sites to inform employees of the educational program being offered and to motivate them to participate. Release time was provided by each company to allow employees to attend the orientation sessions. In addition to explaining the procedures for participation, the orientation was also directed toward encouraging the employee to take advantage of this opportunity to improve personally, to enhance job success and security and to prepare for future workplace needs. At the conclusion of the orientation program, employees are asked to complete a form indicating their interest in pursuing the program. Those who indicate interest are then advised of the next step in the enrollment process - the individual skill level assessment.

4. Assessment

Although some industry partners chose to require testing plant-wide, in most cases only those individuals expressing interest in program participation were tested. The TABE (Test of Adult Basic Skills) locator, a 37-minute vocabulary/math skill assessment was used. The purpose of the assessment was to aid project staff in placing the employee in the educational track most appropriate to his needs. The assessment was professionally administered by project counselors and results were individually presented to each employee. With the presentation of scores, the project counselor aided the employee in determining his educational program choice and in establishing goals for participation. In most cases, this process served as the student enrollment procedure, however, a decision to enroll could be made at a later date. A copy of the Assessment Result/Enrollment Form is included here.

DATE:________

T.O.P. ADMISSIONS FORM

NAME______________________________ SS#______________________________

ADDRESS___________________________ PHONE: __________________________

__________________________________ BEST TIME TO REACH: _____________

AGE________ RACE________ SEX________ YRS W/CO.________ SHIFT________

TABE RESULTS: READING ________ PREV. ENROLLED IN BASIC SKILLS?________

MATH ________ HIGHEST GRADE COMPLETED _______

PROGRAM OPTIONS SELECTED:

LITERACY TUTORING_______ GED________ BASIC SKILLS CLASSES_ _______

TRANSPORTATION________ CHILD CARE ASSISTANCE________

WHAT DO YOU HOPE TO GET OUT OF THE T.O.P. PROGRAM?
Indicate employee's personally stated goals, but also complete checklist.

____

____

Improve Reading/Language Skills_______ Job Development_______
(Productivity/Advancement)

Improve Math Skills_______ Personal Development_______
(Self Esteem)

COUNSELOR'S COMMENTS____

____

____

D:B34

5. Training

Each employee had the option of choosing one of three educational tracks offered:

A. Literacy Tutoring: Those with no or extremely low reading skills were offered a program option of one-on-one tutoring provided through the Greenville Literacy Association. In this program, the Laubach method of teaching reading to adults is employed. The tutors, who volunteer their time, are matched by the Literacy Association to a project participant. Instruction times and locations are selected jointly by the student and tutor.

B. General Educational Development Training: Individuals who have not completed high school could choose to prepare themselves in those skill areas needed for GED testing. Classes were established on site to provide this coursework, developed by and presented through the State Department of Education.

C. Basic Literacy Skills Training: Those employees not placed in the above categories could select basic skill upgrading. This program utlized the job specific curriculum developed from the needs analysis.

For all students the T.O.P. was a voluntary program. Classes (except those involving individual tutors) were held at plant sites on off-shift time. Tutoring was, as indicated, self-scheduled.

6. Support Services

A. Counseling: The role of the counselor began with the assessment process. As assessment results were provided and enrollments accepted, a counselor was assigned to each student. That counselor would assist in establishing individual goals for the student at program outset. Interim visits to the classroom ensured continual observation of the student and encouragement in successful participation. Where absenteeism or other problems arose, plant or phone contacts were made and appropriate assistance provided. A copy of the counseling record form included here demonstrates the nature of this activity.

B. Childcare: Assistance with the payment of childcare expenses incurred during class time was made available to all program participants. By indicating their need for this service and providing their counselor with the childcare provision information needed, payment was made to the child care provider on a monthly basis.

C. Transportation: For those students needing transportation assistance in order to attend classes, bus passes were provided on a monthly basis. Access to this support mechanism was, again, through the program counselor assigned to each student.

The provision of the support services listed above was to ensure that traditional barriers to participation would not eliminate those interested in pursuing this educational opportunity.

T.O.P.
(TRAINING OPPORTUNITIES PARTNERSHIP)
Student Counseling Form

Name____________________________ Company____________________________________

Program:________________________ Date Entered Program:______________________

Date of counseling		Comments (be sure to include progress made on checklist on back of sheet)
Date	Initials	

Does the student indicate a sense of satisfaction or improvement in any of the following areas:

DATE:								
Reading skills								
Math skills								
Communication skills								
Self-esteem								
Job attendance								
Job productivity								
Personal goals								

7. Training Completion: Progress in an adult education curriculum comes extremely slowly, yet individual achievement must be recognized and applauded. Obviously, those securing a GED received a tangible recognition of their coursework completion. Those in basic skills upgrading or literacy tutoring had less documentation of their level of success in the program. For this reason, each company established a level of participation that would determine "course completion." That level might be a certain number of classroom hours attended or a more traditional assessment of skill gains or curriculum completion. Based on this criteria, certificates of recognition were awarded at each training site. A copy of the certificate is included here.

S.C. State Board for Technical and Comprehensive Education

Governor's Initiative for Work Force Excellence

Certificate of Recognition

presented to

for participation in a program of study through the Governor's Initiative for Work Force Excellence.

Awarded this _____ day of ___________________.

Carroll Campbell

Carroll A. Campbell, Jr.
Governor
State of South Carolina

____
Course Instructor

____
Joan Mason, Director
Training Opportunities
Partnership

James R. Morris Jr.

James R. Morris, Jr.
Executive Director
S.C. State Board for Technical
and Comprehensive Education

For additional information, please contact:

Joan Mason, Project Director
Training Opportunities Partnership
Greenville Technical College
P. O. Box 5616
Greenville, South Carolina 29606
803-250-8220